Google Developer Student Clubs

Report for AY2022-23

VISION

Empowering engineers through emerging technologies, innovation and collaboration.

MISSION

Build a strong inclusive community of like-minded individuals who share a passion for technology through mentorship, networking event , projects and implement business solutions through google technologies.

Name of faculty in-charge	
1	Prof. Rupali Bagate (Faculty In-charge)
Name of Student Secretaries	
1	Samik Choudhury
Budget Allocated by Institute	Rs. 1,20,000/-
Sponsorshipreceived	NIL

Name of activities/events conducted

Sr No.	Name of activity	Type (Inter college/ Intra college)
1	National Science Day	Inter college
2	Compose Camp	Inter college
3	Flutter Forward Event -Day 1	Inter college
4	Flutter Forward Event -Day 2	Inter college
5	Flutter Forward Event -Day 3	Inter college
6	Flutter Forward Event -Day 4	Inter college
7	Flutter Forward Event -Day 5	Inter college
8	AIT Solutions Challenge Event – Day 1	Inter college
9	AIT Solutions Challenge Event – Meet 1-3	Inter college
10	AIT Solutions Challenge Event – Meet 4	Inter college

Science Day (AIT Solution Challenge)

Event - “AIT Solution Challenge”

28th February 2023

Required Field	**Information to be filled**
Link for publicity on Social media * (Facebook//twitter/ Instagram)	https://www.instagram.com/p/Cow0SDKKLVC/?igshid=YmMyMTA2M2Y= https://www.linkedin.com/posts/gdsc-aitpune_solutionchallenge-gdsc-googledeveloperstudentclub-activity-7035545408391061504-RplZ?utm_source=share&utm_medium=member_android https://www.linkedin.com/posts/gdsc-aitpune_ait-solution-challenge-activity-7032323175975718912-CTFx?utm_source=share&utm_medium=member_android
Academic Year *	2022-2023
Program driven by *(to be decided by social media coordinator)	Google Developers Students Club , AIT
Program/Activity/Name *	“AIT Solution Challenge”
Select one of the Program Type *(Workshop/Leadership Talk/Motivation Speech/Field Visit/Other)	Other
Select one of the Program Theme *(IPR/Innovation/Entrepreneurship/ Startup/Other)	Innovation
* Start Date	(11:00 AM) 20th February 2023
* End Date	(12:00 PM) 28th March 2023
Number of External Participants, If any	None
*Mode of Session delivery (offline/online)	Offline (Manekshaw Hall) + Online (Ms Teams)
*Number of Student Participants	35

*Number of Faculty Participants	None
Expenditure Amount, If any	Rs 50,000
*Benefit in terms of learning/Skill/Knowledge obtained	1. Understanding of the Google Technologies: Solving real-life problems using Google technologies will provide participants with a deeper understanding of how Google technologies work, as well as how to effectively use them to solve problems. 2. Problem-solving Skills: Participants will also gain problem-solving skills that can be applied in all aspects of their lives and careers. 3. Knowledge of Real-World Applications: Participants will gain knowledge of real-world applications of Google technologies, and how they can be used to develop and implement solutions. 4. Collaboration and Teamwork: Working on real-life problems in a team setting will encourage participants to work together to develop innovative solutions. 5. Networking Opportunities: The event will also provide participants with the chance to network with like-minded peers and to form connections that may be beneficial to their future careers.
*Objective	Objective: 1. To encourage GDSC AIT community members to solve real life problems using Google Technologies. 2. To provide GDSC AIT community members with an opportunity to work on projects in a collaborative environment. 3. To reward GDSC AIT community members with a stipend and some amazing goodies. 4. To educate GDSC AIT community members about the Google Solution Challenge and Google Summer of Code. 5. To provide a platform for GDSC AIT community members to showcase their innovative solutions.
*Faculty Name (Faculty involved in organizing event)	Prof. Rupali Bagate (Faculty In-charge)
*Student Name((student involved in organizing event)	Samik Choudhury (GDSC Lead)

*Photograph1	 

*Photograph2	
*Session plan/Brochure/Document/overall report of the activity	

	 PPT Link : https://docs.google.com/presentation/d/1j-uKcaLVPBcp1Y3YawDwME1NbA3rL8X0DOfv5JylhxE/edit#slide=id.g1f335a85c2f_0_73 Recording link :https://drive.google.com/drive/folders/17HZqoPbU_wXMw3ITNTzzuIWkpVgkc4g8 Session images :https://drive.google.com/drive/folders/1I539WZXbFN8k4y6E4yuNmWB7gAhg1gBH Total Participants and Proposal :https://docs.google.com/spreadsheets/d/1ks97Wxn8v-b2eIhUPEDH-4OAU-DSZjmlg8_q3FW-GsA/edit#gid=0 Rule book link :https://docs.google.com/document/d/1KsKZM6tKt0OZC2PlrZzdD332IcV03pYJmwZ-TaLtn5c/edit

AIT Science Day

Overview:

1. Problem Statements: Google Technologies can be used to solve real-life problems. This track will allow participants to identify a real-life problem and propose a solution using Google Technologies.
2. Open Innovation: Google Technologies can be used in innovative ways to solve problems. This track will allow participants to come up with an innovative solution to a problem using Google Technologies.
3. Google Solution Challenge: Google Solution Challenge is an annual event held by Google. This track will provide participants with an opportunity to work on Google Solution Challenges and earn rewards.
4. Google Summer of Code: Google Summer of Code is an annual program run by Google. This track will provide participants with an opportunity to work on Google Summer of Code projects and earn rewards.
5. Session on Google Technologies: This track will provide participants with a session on Google Technologies and enable them to learn more about the various Google Technologies and how they can be used to solve real-life problems.

Students participating in the event could do so by forming teams of two to three members. Each team was required to submit an individual proposal outlining their particular contribution to the project. The event was

held online, and students could participate by completing tasks and assignments, collaborating with their team, and engaging with the other participants. They could also share their ideas, discuss strategies, and present their work in online forums.

Projects:

1. Virtual Outpass and Leave Management: This would be a project to develop a virtual system for managing employee outpasses and leaves. The system would allow employees to apply for outpasses and leaves, have their applications approved or rejected, and keep track of their outpass and leave history. The system would also be able to generate reports to help managers better manage employee outpass and leave records.

2. Alumni Networking: This project would be dedicated to creating a network for alumni of a particular institution to connect with each other. The network would allow alumni to stay connected, share news, events and opportunities, and provide mentorship to current students.

3. AI Medical X-Ray Analysis and Prediction: This project would involve using artificial intelligence algorithms to analyse medical X-rays and make predictions. The project would involve developing algorithms to detect and classify different types of medical conditions from X-ray images, and using the data to make predictions about the progression of a particular condition.

4. Projects are activities with a specific purpose that have a defined start and end point. Open Innovation 1 and Open Innovation 2 are two different projects that aim to foster innovation and collaboration. They both involve gathering feedback from stakeholders and utilizing technology to create new solutions.

The mentors will provide support and guidance to the participants throughout the project development. They will review the project progress and offer guidance on the best practices to be followed. After the projects have been developed, they will provide feedback on the projects and decide the winners based on the criteria set by the organizing committee.

The prize for this event is worth ₹50,000+. The goodies for the event include mentorship on the project for 1 month and the applications will be forwarded to the Google Solutions Challenge on behalf of GDSC-AIT. Prize distribution for applicants having successful proposals will be disclosed. The prize will be divided as follows:

• Virtual Outpass and Leave Management: Rs 10,000

• Alumni Networking: Rs 10,000

• AI Medical X-Ray Analysis and Prediction: Rs 10,000

• Open Innovation 1: Rs 7,500

• Open Innovation 2: Rs 7,500

Attendance and Attendee Details :

35 students attended the session.

Conclusion:

The event was attended by the FEs, SEs and TEs from the GDSC AIT community. Participants will be rewarded with a stipend and some amazing goodies for their efforts and successful completion of the tracks. The event provided a platform to the participants to work on different projects, hone their skills and gain valuable experience. The organizers of the session are satisfied with the response and enthusiasm shown by the participants and are looking forward to a bigger and better session in the future.

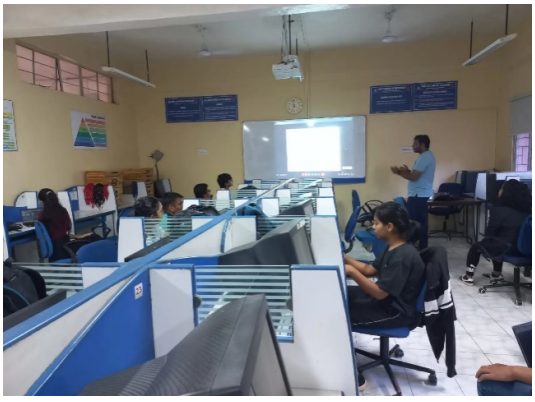
Principal
Army Institute of Technology
Dighi Hills, Pune - 411015

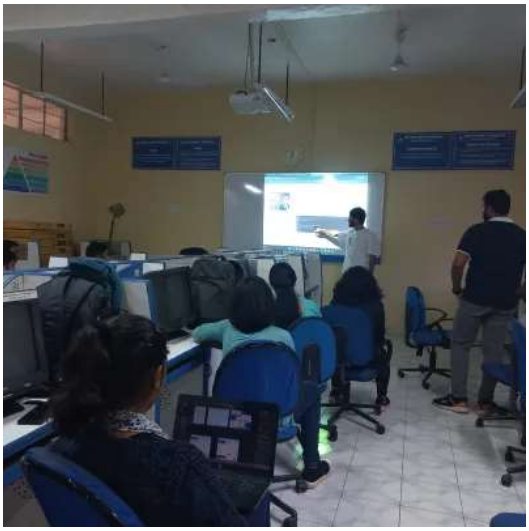
Compose Camp

Event - “Compose Camp”

10th September 2022 to 2th October 2022

Required Field	Information to be filled
Link for publicity on Social media * (Facebook//twitter/ Instagram)	https://www.linkedin.com/posts/gdsc-aitpune_compose-camp-workflow-activity-6973640794121396224-bkQ7?utm_source=share&utm_medium=member_android https://www.linkedin.com/posts/gdsc-aitpune_compose-camp-workflow-activity-6973640794121396224-bkQ7?utm_source=share&utm_medium=member_android https://www.instagram.com/p/CjIuKhUKh6P/?igshid=YmMyMTA2M2Y= https://www.instagram.com/p/CiSxm5nKian/?igshid=YmMyMTA2M2Y=
Academic Year *	2022-2023
Program driven by *(to be decided by social media coordinator)	Google Developers Students Club , AIT
Program/Activity/Name *	“Compose Camp - Android Development”
Select one of the Program Type *(Workshop/Leadership Talk/Motivation Speech/Field Visit/Other)	Other
Select one of the Program Theme *(IPR/Innovation/Entrepreneurship/Startup/ Other)	Other
* Start Date	10th September 2022
* End Date	2th October 2022
Number of External Participants, If any	None
*Mode of Session delivery (offline/online)	Offline
*Number of Student Participants	20
*Number of Faculty Participants	None
Expenditure Amount, If any	Rs 5,000
*Benefit in terms of learning/Skill/Knowledge obtained	1. Understanding the Android architecture: Participants will gain a better understanding of the Android architecture, which includes the Android SDK, Android Studio, and Android APIs.

	2. Working with databases: Participants will learn how to work with databases in Android, including how to create, query, and manage databases. 3. Writing efficient code: Participants will learn how to write efficient code for Android apps, including optimizing code for performance and memory usage and build better UI with Compose.
*Objective	Compose Camp is an Android development educational session designed to help developers learn how to use the Jetpack Compose library to develop mobile applications. This session covers topics such as the Jetpack Compose architecture, writing UI code with Compose, and using Compose to create Material Design components. The session also covers how to use Compose for state management, debugging, styling, and animating. Additionally, the session includes hands-on exercises and demos to allow developers to practice their newly acquired skills.
*Faculty Name (Faculty involved in organizing event)	Prof. Rupali Bagate (Faculty In-charge)
*Student Name((student involved in organizing event)	Samik Choudhury (GDSC Lead)
*Photograph1	 

*Photograph2	
*Session plan/Brochure/Document/overall report of the activity	Session plan/Brochure/Document/overall report of the activity

Compose Camp Sessions

Overview:

The Compose Camp Android development educational session was a great success. Over the course of the session, students were able to gain a comprehensive understanding of the fundamentals of Android development, including the basics of creating an Android application and the architecture of the Android platform. The students were also able to learn about the latest tools and technologies for Android development, including the Android SDK, Android Studio, and the Android Jetpack libraries.

At the end of the session, the students presented their projects and the feedback was extremely positive. Many of the projects they created demonstrated a deep understanding of the principles of Android development as well as an impressive amount of creativity. Overall, the Compose Camp Android development educational session was a great success and the students walked away with a better understanding of the Android platform and the tools necessary to create great Android apps.

Also the quiz were conducted after the sessions, and questions were based on the topics discussed during the session. The winners were chosen based on their scores and would be given t-shirts and certificates as rewards. Winners will receive a prize package valued at Rs 5,000, including certificates, T-shirts, and stickers.

ARMY INSTITUTE OF TECHNOLOGY PUNE 411015

Principal
Army Institute of Technology
Dighi Hills, Pune - 411015

Detailed Report - Flutter Forward Event

Day 1: Introductory Session :

Date :10th September 2022

Time : 12pm - 1pm

Mode : Offline (IT Lab III)

Topics covered :

Introduction to the Android Platform and Kotlin: This section introduces the Android platform and the Kotlin language, and provides an overview of the Android development process.

Android Studio and the Android SDK: In this section, we will look at the Android Studio IDE, and the Android SDK, which contains all the necessary tools for Android development.

Setting up your development environment: This section will show you how to set up your development environment, including downloading and installing the necessary software.

Fundamentals of Kotlin and Android Development: In this section, we will learn the fundamentals of the Kotlin language and the Android SDK. We will look at topics such as activities, intents, and permissions.

Android Studio Tools: This section covers the tools available within Android Studio, such as the layout editor, the debugger, and the emulator.

Layouts and Views: In this section, we will look at how to create layouts and views in Android, as well as how to customise them.

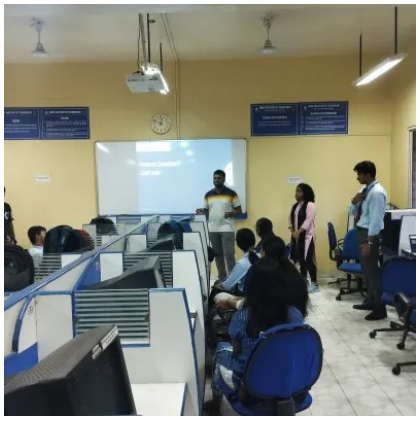
Attendance and Attendee Details :

20 Students attended the session and below are the details of the participants -

Students Name	**Registration or Roll No.**
Kumari Riya	4126
Vishal Suthar	22256

Sachin kumar	22223
Ayush	7114
Ankush	3114
Ankit Singh	22160
Sumit Kumar Nath	22403
Satyajit	22273
Vignesh	22362
Ashish singh	22292
Aditya	22183
Gnana sagar	7147
Harshita	7125
Akhilesh Patidar	7163
Rishi Kumar Singh	22285
Yash Pathak	22474
Darshan	22164
Ayush	22369
J Vignesh Pandit	1121

Photographs of the session:



Day 2: Build Basic App with Kotlin :

Date : 11th September 2022

Time :11 am - 1 pm

Mode : Offline (IT Lab III)

Topics covered :

1. Overview of Kotlin: Understanding the basics of Kotlin, the language and its features.

2. Setting up the Kotlin Development Environment: Exploring how to set up the development environment for creating Kotlin applications.

3. Data Types and Variables: Learning about the different data types and variables available in Kotlin.

4. Control Flow: Learning about the various control flow structures available in Kotlin.

5. Functions: Understanding the different ways of declaring and using functions in Kotlin.

6. Classes and Objects: Learning about classes, objects, and related concepts in Kotlin.

7. Lambda Expressions and Higher-Order Functions: Exploring how to use Lambda expressions and higher-order functions in Kotlin.

8. Collections and Generics: Learning about the different collections available in Kotlin and how to use generics in them.

9. Annotation Processing: Exploring how to use annotations in Kotlin for application development.

10. Coroutines: Learning about coroutines and how to use them in Kotlin.

Attendance and Attendee Details :

20 Students attended the session and below are the details of the participants -

Students Name	**Registration or Roll No.**
Kumari Riya	4126
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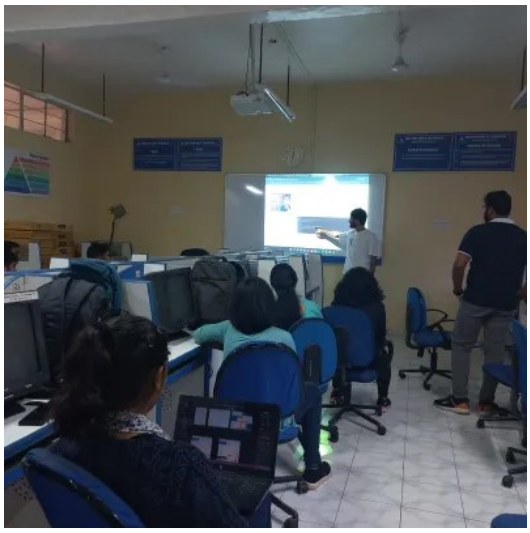
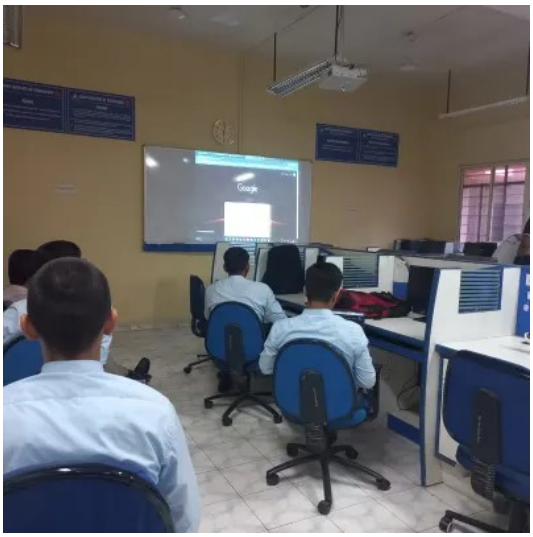
Photographs of the session:





Day 3: Compose UI:

Date : 30 September 2022

Time :11 am - 1pm

Mode : Offline (IT Lab III)

Topics covered :

1. Writing the Code: In this section, you will learn how to write code in the Compose language, including the basics of object-oriented programming concepts, data structure and algorithms.

2. Debugging: Debugging is an essential part of the development process, and in this section you will learn how to debug Compose applications.

3. Testing: Writing tests is an important part of development, and in this section you will learn how to write unit and integration tests for Compose applications.

4. Deployment: In this section, you will learn how to deploy a Compose application to a production environment.

5. Data Storage: In this section, you will learn how to use Compose to store data in a database or other persistent storage.

6. Security: Security is an important aspect of application development, and in this section you will learn how to secure Compose applications.

7. Platforms: In this section, you will learn how to deploy Compose applications on different platforms, such as mobile and web.

8. Troubleshooting: In this section, you will learn how to troubleshoot and debug Compose applications.

Attendance and Attendee Details :

20 Students attended the session and below are the details of the participants -

Students Name	**Registration or Roll No.**
Kumari Riya	4126

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J Vignesh Pandit	1121

Photographs of the session:

Day 4: Modern App Architecture :

Date : 1st October 2022

Time : 11 am - 12pm

Mode : Offline (IT Lab III)

Topics covered :

1. Architecture Components and Patterns: Discussing and exploring the best practices and components of modern Android app architecture such as MVP, MVVM, and Clean Architecture, and how to implement them in your apps.

2. Persistence and Data Storage: Exploring the different options for storing data in Android apps, including the usage of SQLite, Room, and more.

3. Network Communication: Exploring the different methods for making network requests in Android apps, such as Retrofit, Volley, and OkHttp.

4. Reactive Programming: Exploring the different reactive programming frameworks available for Android, such as RxJava and Coroutines, and how to use them effectively.

5. Testing: Exploring the different options for testing Android apps, including unit tests and UI tests.

6. Dependency Injection: Exploring the different options for dependency injection frameworks available for Android, such as Dagger and Koin.

Attendance and Attendee Details :

20 Students attended the session and below are the details of the participants -

Students Name	**Registration or Roll No.**
Kumari Riya	4126
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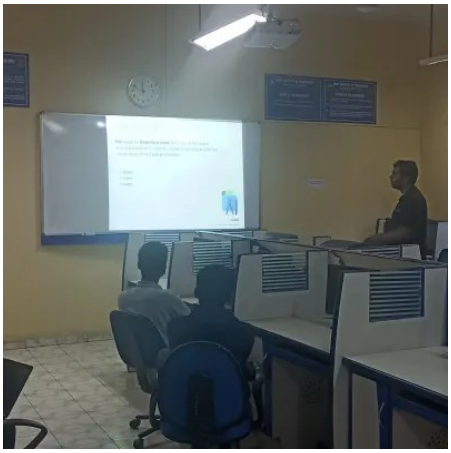
Photographs of the session:



Day 5: Project Building :

Date : 2 October 2022

Time :10 am - 12pm

Mode : Offline (IT Lab III)

Topics covered :

Kotlin and Compose are two popular programming languages used for the development of Android applications. The Android Calculator application is an example of a simple application that can be built using Kotlin and Compose in this session to give the hands on expireance to the students..

The application consists of two primary components - a user interface and a back-end logic. The user interface is built with Compose, a declarative UI toolkit for creating modern Android applications. Compose allows developers to quickly and easily create complex UI layouts, animations, and transitions. The back-end logic is handled by Kotlin, a modern, statically typed programming language. Kotlin is designed to be easy to read and write, and it provides a wide range of features that make it well-suited for developing Android applications.

The application follows the Model-View-ViewModel (MVVM) pattern, which is a popular architecture for Android applications. The ViewModel is responsible for managing the application's data and interacting with the back-end logic, while the View layer is responsible for displaying the data to the user. The ViewModel is written in Kotlin, and the View layer is written in Compose.

Attendance and Attendee Details :

20 Students attended the session and below are the details of the participants -

Students Name	**Registration or Roll No.**
Kumari Riya	4126
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Ayush	7114
Ankush	3114
Ankit Singh	22160

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Rishi Kumar Singh	22285
Yash Pathak	22474
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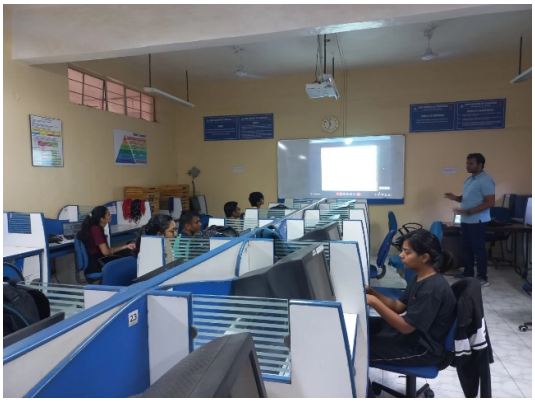
Ayush	22369
J Vignesh Pandit	1121

Photographs of the session:



Conclusion:

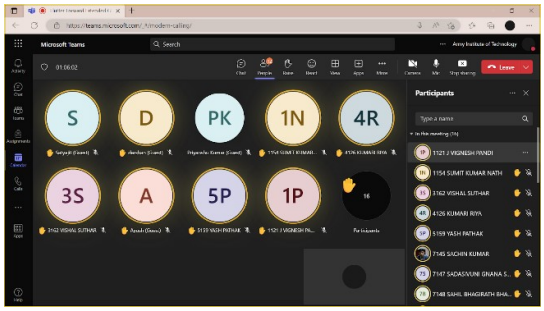
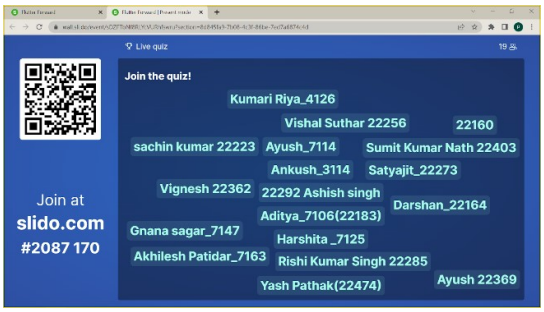
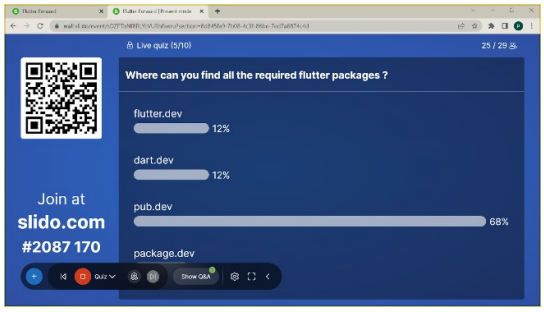
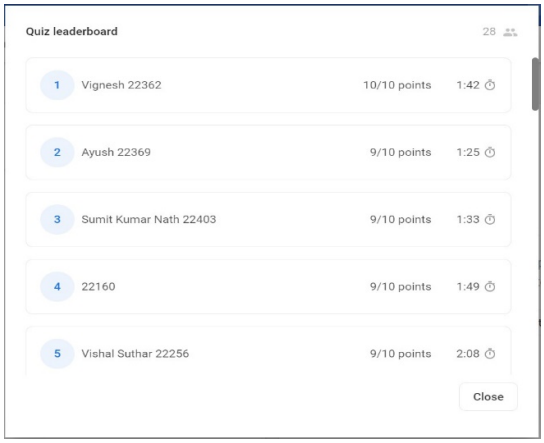
At the conclusion of this android educational session, we have covered the basics of developing an android application, from designing the UI to adding features. We have also discussed the different tools and techniques used to develop an android application. We hope that students have gained a better understanding of android development and have the confidence to create their own application. After all the camp was the great success with the help of the faculty incharge , speakers and the students those who participated.

Report Flutter Forward Event (Day 1)

Event - “Flutter Forward Event”

24th February 2023

Required Field	Information to be filled
Link for publicity on Social media * (Facebook//twitter/ Instagram)	https://www.instagram.com/p/ComeSC4Mk8e/?igshid=YmMyMTA2M2Y=
Academic Year *	2022-2023
Program driven by *(to be decided by social media coordinator)	Google Developers Students Club , AIT
Program/Activity/Name *	“Flutter Forward Event”
Select one of the Program Type *(Workshop/Leadership Talk/Motivation Speech/Field Visit/Other)	Workshop / Study Sessions
Select one of the Program Theme *(IPR/Innovation/Entrepreneurship/Startup /Other)	Other
* Start Date	(10:00 AM) 24th February 2023
* End Date	(12:00 PM) 24th February 2023
Number of External Participants, If any	None
*Mode of Session delivery (offline/online)	Online (MS Teams)
*Number of Student Participants	30+
*Number of Faculty Participants	None
Expenditure Amount, If any	Rs 5,000
*Benefit in terms of learning/Skill/Knowledge obtained	1. Develop Problem-Solving Skills: By taking a class on flutter development, students can learn how to break down and solve complicated coding problems. 2. Improve Job Prospects: Taking a class on flutter development can give students a competitive edge when applying for jobs. 3. Learn the Basics of Mobile Development: Flutter is a great way to learn the basics of mobile development.

*Objective	To introduce students to Flutter and its capabilities, enabling them to create beautiful, interactive apps for mobile, web, and desktop.
*Faculty Name (Faculty involved in organizing event)	Prof. Rupali Bagate (Faculty In-charge)
*Student Name((student involved in organizing event)	Samik Choudhury (GDSC Lead)
*Photograph1	
*Photograph2	  

*Session plan/Brochure/Document/overall report of the activity	

Flutter Forward Event

Overview:

In an introductory session of Flutter educational classes, you will learn the basics of the Flutter framework, including:

- What is Flutter and how it works

- Exploring the development environment and setup

- Building a simple UI

- Using widgets to create complex layouts

- Handling user input and events

- Understanding the Flutter architecture

- Working with packages and plugins

- Debugging and deploying Flutter apps

- Writing and running tests
- What is Flutter and how it works

Attendance and Attendee Details :

30+ Students attended the session and below are the details of some participants -

Students Name	**Registration or Roll No.**
Kumari Riya	4126
Vishal Suthar	22256
Sachin kumar	22223

Ayush	7114
Ankush	3114
Ankit Singh	22160
Sumit Kumar Nath	22403
Satyajit	22273
Vignesh	22362
Ashish singh	22292
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Akhilesh Patidar	7163
Rishi Kumar Singh	22285
Yash Pathak	22474
Darshan	22164
Ayush	22369
J Vignesh Pandit	1121

Conclusion:

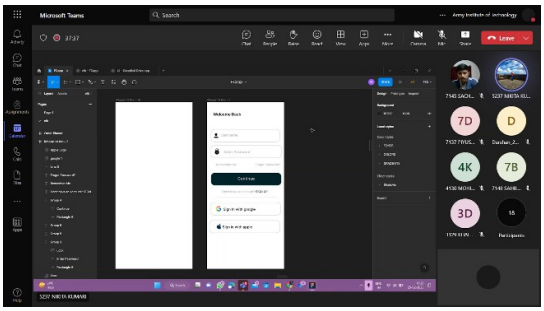
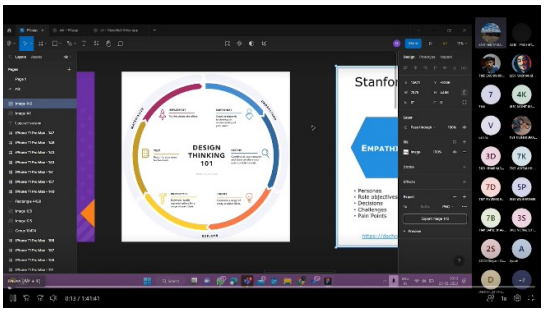
This was the first/introductory session of the series where we had introduced flutter, i.e its works, its platform compatibility, its fast development time, future opportunities and much more. Our purpose of this session is to introduce first year students to the field of app development through flutter framework which we had accomplished successfully. To check their understanding, we had also conducted an online quiz in which everyone performed excellently.

Report Flutter Forward Event (Day 2)

Event - “Flutter Forward Event”

25th February 2023

Required Field	**Information to be filled**
Link for publicity on Social media * (Facebook//twitter/ Instagram)	https://www.instagram.com/p/CpDW12sKov7/?igshid=YmMyMTA2M2Y=
Academic Year *	2022-2023
Program driven by *(to be decided by social media coordinator)	Google Developers Students Club , AIT
Program/Activity/Name *	“Flutter Forward Event”
Select one of the Program Type *(Workshop/Leadership Talk/Motivation Speech/Field Visit/Other)	Workshop / Study Sessions
Select one of the Program Theme *(IPR/Innovation/Entrepreneurship/Startup /Other)	Other
* Start Date	(10:00 AM) 25th February 2023
* End Date	(12:00 PM) 25th February 2023
Number of External Participants, If any	None
*Mode of Session delivery (offline/online)	Online (MS Teams)
*Number of Student Participants	30+
*Number of Faculty Participants	None
Expenditure Amount, If any	Rs 5,000
*Benefit in terms of learning/Skill/Knowledge obtained	1. Develop Problem-Solving Skills: By taking a class on flutter development, students can learn how to break down and solve complicated coding problems. 2. Improve Job Prospects: Taking a class on flutter development can give students a competitive edge when applying for jobs. 3. Learn the Basics of Mobile Development: Flutter is a great way to learn the basics of mobile development.

*Objective	To introduce students to Flutter and its capabilities, enabling them to create beautiful, interactive apps for mobile, web, and desktop.
*Faculty Name (Faculty involved in organizing event)	Prof. Rupali Bagate (Faculty In-charge)
*Student Name((student involved in organizing event)	Samik Choudhury (GDSC Lead)
*Photograph1	
*Photograph2	
*Session plan/Brochure/Document/overall report of the activity	

Flutter Forward Event

Overview:

In this flutter educational session of dart basics and installation, we have learned about the fundamentals of the dart language, how to install the flutter SDK, and how to set up a development environment for building mobile applications using the Flutter framework. We have also learned about the different components of a Flutter application such as the user interface (UI), the application logic, and the data layer. Finally, we have learned how to debug and deploy your applications to mobile devices.

Attendance and Attendee Details :

30+ Students attended the session and below are the details of some participants -

Students Name	**Registration or Roll No.**
Kumari Riya	4126
Vishal Suthar	22256
Sachin kumar	22223
Ayush	7114
Ankush	3114
Ankit Singh	22160
Sumit Kumar Nath	22403
Satyajit	22273
Vignesh	22362
Ashish singh	22292
Aditya	22183
Gnana sagar	7147
Harshita	7125
Akhilesh Patidar	7163
Rishi Kumar Singh	22285
Yash Pathak	22474
Darshan	22164
Ayush	22369
J Vignesh Pandit	1121

Conclusion:

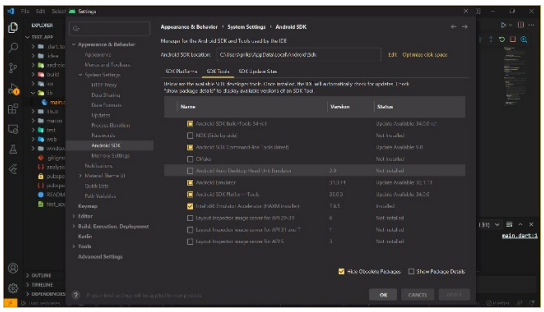
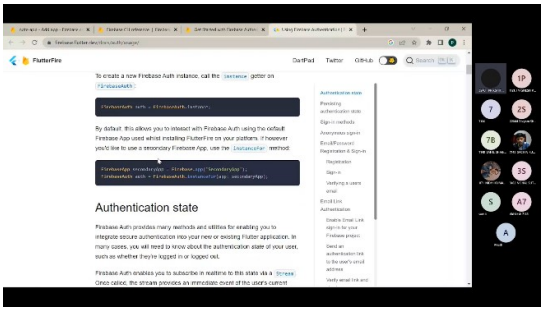
In this session we had completed the setup for flutter app developments, i.e its software development toolkit (sdk), emulator, setting the path, setting up the editor and other basic necessities. Then we had a session on design thinking. To make them understand the important factors to be considered in building an app that can be used by anyone with ease and how the wire framing and basic UI is designed in figma before starting the app building phase.

Report Flutter Forward Event (Day 3)

Event - “Flutter Forward Event”

26th February 2023

Required Field	Information to be filled
Link for publicity on Social media * (Facebook//twitter/ Instagram)	https://www.instagram.com/p/CpHKgCfKF45/?igshid=YmMyMTA2M2Y=
Academic Year *	2022-2023
Program driven by *(to be decided by social media coordinator)	Google Developers Students Club , AIT
Program/Activity/Name *	“Flutter Forward Event”
Select one of the Program Type *(Workshop/Leadership Talk/Motivation Speech/Field Visit/Other)	Workshop / Study Sessions
Select one of the Program Theme *(IPR/Innovation/Entrepreneurship/Startup /Other)	Other
* Start Date	(10:00 AM) 26th February 2023
* End Date	(12:00 PM) 26th February 2023
Number of External Participants, If any	None
*Mode of Session delivery (offline/online)	Online (MS Teams)
*Number of Student Participants	30+
*Number of Faculty Participants	None
Expenditure Amount, If any	Rs 5,000
*Benefit in terms of learning/Skill/Knowledge obtained	1. Develop Problem-Solving Skills: By taking a class on flutter development, students can learn how to break down and solve complicated coding problems. 2. Improve Job Prospects: Taking a class on flutter development can give students a competitive edge when applying for jobs. 3. Learn the Basics of Mobile Development: Flutter is a great way to learn the basics of mobile development.

*Objective	To introduce students to Flutter and its capabilities, enabling them to create beautiful, interactive apps for mobile, web, and desktop.
*Faculty Name (Faculty involved in organizing event)	Prof. Rupali Bagate (Faculty In-charge)
*Student Name((student involved in organizing event)	Samik Choudhury (GDSC Lead)
*Photograph1	
*Photograph2	
*Session plan/Brochure/Document/overall report of the activity	

Overview:

In this session, we have discussed in-depth about Firebase and how it works. We have highlighted all the features and capabilities of Firebase, such as its real-time database, authentication, analytics, cloud storage, hosting, remote configuration, and notifications. We have also explored how developers can use Firebase to create powerful apps, leveraging its powerful backend. We have also demonstrated various ways to integrate Firebase into a Flutter app, such as using Firebase Authentication, Firebase Cloud Messaging, and Firebase Realtime Database. Lastly, we have discussed the best practices for using Firebase with Flutter and tips for troubleshooting common Firebase issues.

Attendance and Attendee Details :

30+ Students attended the session and below are the details of some participants -

Students Name	**Registration or Roll No.**
Kumari Riya	4126
Vishal Suthar	22256
Sachin kumar	22223
Ayush	7114
Ankush	3114
Ankit Singh	22160
Sumit Kumar Nath	22403
Satyajit	22273
Vignesh	22362
Ashish singh	22292
Aditya	22183
Gnana sagar	7147
Harshita	7125
Akhilesh Patidar	7163
Rishi Kumar Singh	22285
Yash Pathak	22474
Darshan	22164
Ayush	22369
J Vignesh Pandit	1121

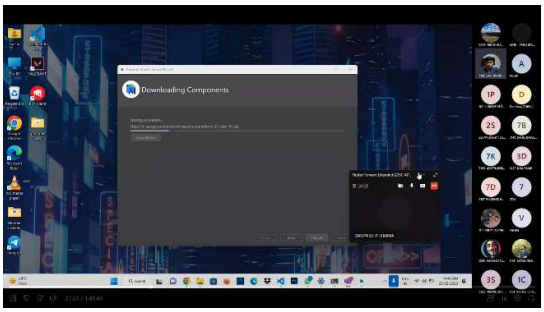
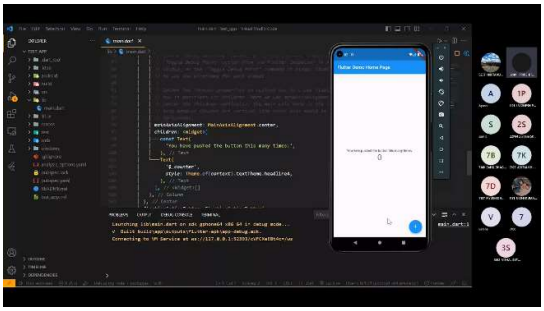
Conclusion: In this session we had explained the file/folder structuring of a flutter app and some most commonly used widgets. We had built some common UI's like showing text, images, app bar, bottom navigation bar, designing and customising them. This session was completely hands on and at the end of the session we had kept a doubt resolving session.

Report Flutter Forward Event (Day 4)

Event - “Flutter Forward Event”

4th March 2023

Required Field	**Information to be filled**
Link for publicity on Social media * (Facebook//twitter/ Instagram)	https://www.instagram.com/p/CpVXld9KbX-/?utm_source=
Academic Year *	2022-2023
Program driven by *(to be decided by social media coordinator)	Google Developers Students Club , AIT
Program/Activity/Name *	“Flutter Forward Event”
Select one of the Program Type *(Workshop/Leadership Talk/Motivation Speech/Field Visit/Other)	Workshop / Study Sessions
Select one of the Program Theme *(IPR/Innovation/Entrepreneurship/Startup/Other)	Other
* Start Date	(10:00 AM) 4th March 2023
* End Date	(12:00 PM) 4th March 2023
Number of External Participants, If any	None
*Mode of Session delivery (offline/online)	Online (MS Teams)
*Number of Student Participants	30+
*Number of Faculty Participants	None
Expenditure Amount, If any	Rs 5,000
*Benefit in terms of learning/Skill/Knowledge obtained	1. Develop Problem-Solving Skills: By taking a class on flutter development, students can learn how to break down and solve complicated coding problems. 2. Improve Job Prospects: Taking a class on flutter development can give students a competitive edge when applying for jobs.

	3. Learn the Basics of Mobile Development: Flutter is a great way to learn the basics of mobile development.
*Objective	To introduce students to Flutter and its capabilities, enabling them to create beautiful, interactive apps for mobile, web, and desktop.
*Faculty Name (Faculty involved in organizing event)	Prof. Rupali Bagate (Faculty In-charge)
*Student Name((student involved in organizing event)	Samik Choudhury (GDSC Lead)
*Photograph1	
*Photograph2	
*Session plan/Brochure/Document/overall report of the activity	

Flutter Forward Event

Overview:

In this session, we have explored how to create a Flutter and Firebase notes app from scratch. We have learned how to design the UI of the app and how to integrate the app with Firebase using FlutterFire. We have also discussed the advantages of using Firebase for app development and the various features of Firebase such as authentication, cloud storage, and real-time database. At the end of this session, you should have a good understanding of how to build a Flutter and Firebase notes app and how to integrate it with Firebase.

Attendance and Attendee Details :

30+ Students attended the session and below are the details of some participants -

Students Name	**Registration or Roll No.**
Kumari Riya	4126
Vishal Suthar	22256
Sachin kumar	22223
Ayush	7114
Ankush	3114
Ankit Singh	22160
Sumit Kumar Nath	22403
Satyajit	22273
Vignesh	22362
Ashish singh	22292
Aditya	22183
Gnana sagar	7147
Harshita	7125
Akhilesh Patidar	7163
Rishi Kumar Singh	22285
Yash Pathak	22474
Darshan	22164
Ayush	22369
J Vignesh Pandit	1121

Conclusion:

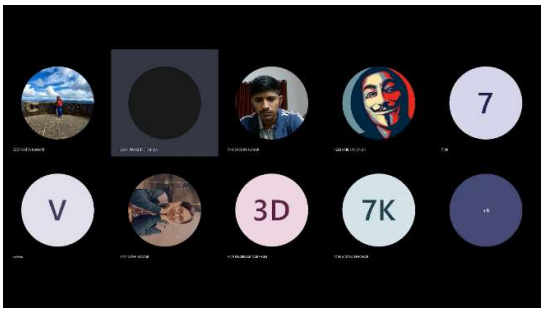
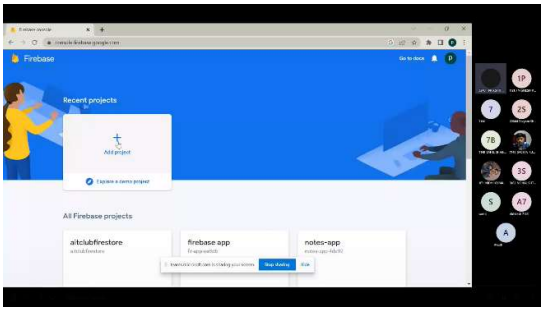
This session was concluded successfully, in this session we had started building a project based on flutter and firebase. The purpose of this session is to show the students how to connect firebase (a backend/ database) to their mobile/web app so that their app can have its cloud database. Not only firebase but we had also taught about state management and how to build a complex UI using flutter and use pre made packages.

Report Flutter Forward Event (Day 5)

Event - “Flutter Forward Event”

5th March 2023

Required Field	**Information to be filled**
Link for publicity on Social media * (Facebook//twitter/ Instagram)	https://www.instagram.com/p/CpXD-hYutm7/?utm_source=ig_web_copy_link
Academic Year *	2022-2023
Program driven by *(to be decided by social media coordinator)	Google Developers Students Club , AIT
Program/Activity/Name *	“Flutter Forward Event”
Select one of the Program Type *(Workshop/Leadership Talk/Motivation Speech/Field Visit/Other)	Workshop / Study Sessions
Select one of the Program Theme *(IPR/Innovation/Entrepreneurship/Startup/Other)	Other
* Start Date	(10:00 AM) 5th March 2023
* End Date	(12:00 PM) 5th March 2023
Number of External Participants, If any	None
*Mode of Session delivery (offline/online)	Online (MS Teams)
*Number of Student Participants	30+
*Number of Faculty Participants	None
Expenditure Amount, If any	Rs 5,000
*Benefit in terms of learning/Skill/Knowledge obtained	1. Develop Problem-Solving Skills: By taking a class on flutter development, students can learn how to break down and solve complicated coding problems. 2. Improve Job Prospects: Taking a class on flutter development can give students a competitive edge when applying for jobs.

	3. Learn the Basics of Mobile Development: Flutter is a great way to learn the basics of mobile development.
*Objective	To introduce students to Flutter and its capabilities, enabling them to create beautiful, interactive apps for mobile, web, and desktop.
*Faculty Name (Faculty involved in organizing event)	Prof. Rupali Bagate (Faculty In-charge)
*Student Name((student involved in organizing event)	Samik Choudhury (GDSC Lead)
*Photograph1	
*Photograph2	
*Session plan/Brochure/Document/overall report of the activity	

Flutter Forward Event

Overview:

In this session, we have explored the Flutter framework and how to perform the basic CRUD (Create, Read, Update, Delete) operations and how to troubleshoot errors or queries. We have learned how to use Flutter Widgets, create controllers, and use the various Flutter APIs to provide a better user experience. We have also explored the features of Flutter, such as its fast development times, support for various platforms, and its ability to provide an engaging user experience. Finally, we have discussed how to best use the Flutter platform for our own applications.

Attendance and Attendee Details :

30+ Students attended the session and below are the details of some participants -

Students Name	**Registration or Roll No.**
Kumari Riya	4126
Vishal Suthar	22256
Sachin kumar	22223
Ayush	7114
Ankush	3114
Ankit Singh	22160
Sumit Kumar Nath	22403
Satyajit	22273
Vignesh	22362
Ashish singh	22292
Aditya	22183
Gnana sagar	7147
Harshita	7125
Akhilesh Patidar	7163
Rishi Kumar Singh	22285
Yash Pathak	22474
Darshan	22164
Ayush	22369
J Vignesh Pandit	1121

Conclusion:

This was the concluding session of the event where we had completed our real world project. The purpose of these flutter session classes taken in the college is that the students have a better understanding of the Flutter framework and the tools it provides for creating a mobile application. They have a better understanding of the

features and functionalities of Flutter and how to develop mobile applications using the framework. They have also learned how to debug and troubleshoot Flutter applications and learned how to publish mobile applications to the Google Play Store and App Store.

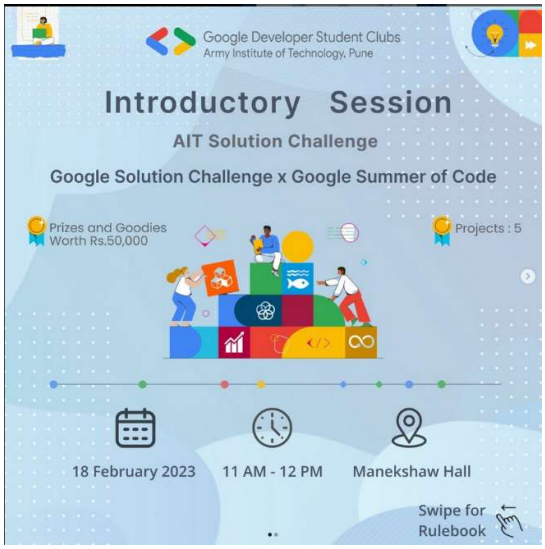
Report AIT Solution Challenge Event (Day 1)

Event - “AIT Solution Challenge”

18th February 2023

Required Field	Information to be filled
Link for publicity on Social media * (Facebook//twitter/ Instagram)	https://www.instagram.com/p/Cow0SDKKLVC/
Academic Year *	2022-2023
Program driven by *(to be decided by social media coordinator)	Google Developers Students Club , AIT
Program/Activity/Name *	“AIT Solution Challenge”
Select one of the Program Type *(Workshop/Leadership Talk/Motivation Speech/Field Visit/Other)	Other
Select one of the Program Theme *(IPR/Innovation/Entrepreneurship/Startup/Other)	Other
* Start Date	(10:00 AM) 18th February 2023
* End Date	(12:00 PM) 18th February 2023
Number of External Participants, If any	None
*Mode of Session delivery (offline/online)	Offline
*Number of Student Participants	30+
*Number of Faculty Participants	None
Expenditure Amount, If any	-
*Benefit in terms of learning/Skill/Knowledge obtained	1.Student were now aware about GSoC. 2. Students were now aware about the Google Solution Challenge. 3. Problem Solving and Collaboration Skills were developed among students.
*Objective	To introduce students with GSOC and Google Solution Challenge. Also, to announce the AIT Solution Challenge.
*Faculty Name (Faculty involved in organizing event)	Prof. Rupali Bagate (Faculty In-charge)
*Student Name((student involved in organizing event)	Samik Choudhury (GDSC Lead)

*Photograph1	
*Photograph2	 

*Session plan/Brochure/Document/overall report of the activity	

AIT Solution Challenge

Overview:

1. In an introductory session of Flutter educational classes, you will learn the basics of the Flutter framework, including:
    a. Exclusive event organised for students of AIT
    b. Aimed at students interested in working on various projects
    c. Participants had the opportunity to earn a stipend
    d. Participants received amazing goodies as rewards
    e. Event encouraged collaboration among community members
    f. Diverse projects provided opportunities for skill enhancement
    g. Participants were thrilled to be a part of the event
    h. The event fostered a sense of learning and growth
    i. Attendees expressed satisfaction with the unique and rewarding experience
    j. The event helped participants take their skills to new heights

Attendance and Attendee Details :

30+ Students attended the session and below are the details of some participants -

Students Name	**Registration or Roll No.**
Shantanu Rajmane	22992
Harshal Patil	21129
Pravesh	21195
Sumit Shinde	21159
Prathamesh	21128
Ankit More	21223

Suraj	21058
Vaishnavi	21166
Priya	21181
Shreyas	21125

Conclusion:

This was the first/introductory session of the AIT Solution Challenge where we had introduced GSoC and Google Solution Challenge. Also announced AIT Solution Challenge, where students can participate and solve defined community problems or they can contribute through open innovation categories.

Report AIT Solution Challenge Event (Meet)

Event - "AIT Solution Challenge"

Meet 1: 1st March 2023

Required Field	**Information to be filled**
Meet Link*	https://meet.google.com/qug-vitu-tsb
Academic Year *	2022-2023
Program driven by *(to be decided by social media coordinator)	Google Developers Students Club , AIT
Program/Activity/Name *	"AIT Solution Challenge"
Select one of the Program Type *(Workshop/Leadership Talk/Motivation Speech/Field Visit/Other)	Other
Select one of the Program Theme *(IPR/Innovation/Entrepreneurship/Startup/Other)	Other
* Start Date	11:00 AM 1st March 2023
* End Date	12:00 PM 1st March 2023
Number of External Participants, If any	None
*Mode of Session delivery (offline/online)	Online
*Number of Student Participants	15+
*Number of Faculty Participants	None
Expenditure Amount, If any	-
*Benefit in terms of learning/Skill/Knowledge obtained	• First meet held with mentors. Teams introduced to mentors • Students discussed project overview and timeline with mentors • Mentors made small changes to the required project • Objective was to optimise the project development process • Changes aimed at achieving the best possible outcome for the project

*Objective	Meet to Optimise project development by facilitating effective communication and collaboration between students and mentors, ensuring alignment, and incorporating mentor guidance for improved outcomes.
*Faculty Name (Faculty involved in organising event)	Prof. Rupali Bagate (Faculty In-charge)
*Student Name((student involved in organising event)	Samik Choudhury (GDSC Lead)

Meet 2: 8th March 2023

Required Field	**Information to be filled**
Meet Link*	https://meet.google.com/qug-vitu-tsb
Academic Year *	2022-2023
Program driven by *(to be decided by social media coordinator)	Google Developers Students Club , AIT
Program/Activity/Name *	“AIT Solution Challenge”
Select one of the Program Type *(Workshop/Leadership Talk/Motivation Speech/Field Visit/Other)	Other
Select one of the Program Theme *(IPR/Innovation/Entrepreneurship/Startup/Other)	Other
* Start Date	(10:00 PM) 8th March 2023
* End Date	(11:00 PM) 8th March 2023
Number of External Participants, If any	None
*Mode of Session delivery (offline/online)	Online
*Number of Student Participants	15+
*Number of Faculty Participants	None
Expenditure Amount, If any	-
*Benefit in terms of learning/Skill/Knowledge obtained	Through this assessment, teams gained insights and opportunities for skill enhancement, fostering their overall learning and growth.

*Objective	The objective of the first judging round was to evaluate teams based on specific criteria and promote learning, collaboration, and project success.
*Faculty Name (Faculty involved in organizing event)	Prof. Rupali Bagate (Faculty In-charge)
*Student Name((student involved in organizing event)	Samik Choudhury (GDSC Lead)

Meet 3: 20th March 2023

Required Field	**Information to be filled**
Meet Link*	https://meet.google.com/qug-vitu-tsb
Academic Year *	2022-2023
Program driven by *(to be decided by social media coordinator)	Google Developers Students Club , AIT
Program/Activity/Name *	"AIT Solution Challenge"
Select one of the Program Type *(Workshop/Leadership Talk/Motivation Speech/Field Visit/Other)	Other
Select one of the Program Theme *(IPR/Innovation/Entrepreneurship/Startup/Other)	Other
* Start Date	(10:00 PM) 20th March 2023
* End Date	(11:00 PM) 20th March2023
Number of External Participants, If any	None
*Mode of Session delivery (offline/online)	Online
*Number of Student Participants	15+
*Number of Faculty Participants	None
Expenditure Amount, If any	-
*Benefit in terms of learning/Skill/Knowledge obtained	Gain proficiency in backend development, understand the testing process, and ensure project readiness for testing.
*Objective	Complete the third phase of the project by finishing the backend development and preparing for the testing phase.
*Faculty Name (Faculty involved in organising event)	Prof. Rupali Bagate (Faculty In-charge)

*Student Name((student involved in organising event)	Samik Choudhury (GDSC Lead)

Meet 4: 27th March 2023

Required Field	**Information to be filled**
Meet Link*	https://meet.google.com/qug-vitu-tsb
Academic Year *	2022-2023
Program driven by *(to be decided by social media coordinator)	Google Developers Students Club , AIT
Program/Activity/Name *	"AIT Solution Challenge"
Select one of the Program Type *(Workshop/Leadership Talk/Motivation Speech/Field Visit/Other)	Other
Select one of the Program Theme *(IPR/Innovation/Entrepreneurship/Startup/Other)	Other
* Start Date	(10:00 PM) 27th March 2023
* End Date	(11:00 PM) 27th March2023
Number of External Participants, If any	None
*Mode of Session delivery (offline/online)	Online
*Number of Student Participants	15+
*Number of Faculty Participants	None
Expenditure Amount, If any	-
*Benefit in terms of learning/Skill/Knowledge obtained	Testing, user feedback analysis, iterative development, collaboration and communication, product finalization.
*Objective	Successfully complete the final phase of the project development by conducting testing, incorporating user feedback, and finalizing the product.
*Faculty Name (Faculty involved in organising event)	Prof. Rupali Bagate (Faculty In-charge)
*Student Name((student involved in organising event)	Samik Choudhury (GDSC Lead)

AIT Solution Challenge

Overview:

The initial meeting between the teams and mentors served as an important introduction and discussion session for the projects. The mentors were introduced to the teams and gained insights into each project's overview and timeline. During the meeting, the mentors provided valuable guidance and suggested small changes to optimise the projects. These adjustments aim to ensure that the projects are developed in the most efficient and effective manner. Overall, the meeting laid the foundation for a fruitful collaboration between the teams and mentors, with the expectation of enhancing the projects' overall outcomes.

The judging round was conducted, where each team member was evaluated based on specific criteria. These criteria included completion of deliverables, code quality, number of pull requests, timeliness, professionalism, and learning and growth. This comprehensive assessment allowed teams to showcase their progress, skills, and commitment to the project.Attendance and Attendee Details :

15+ Students attended the session and below are the details of some participants -

Students Name	**Registration or Roll No.**
Shantanu Rajmane	22992
Harshal Patil	21129
Pravesh	21195
Mayank	21189
Aditya Kurmi	21188
Aakash	21147
Abrish	21417

Conclusion:

In summary, the initial meeting between the teams and mentors was conducted to introduce the mentors to the projects and establish a productive working relationship. The mentors provided valuable suggestions for small changes to optimise the projects. This collaborative interaction is expected to enhance the overall quality and success of the projects.

ARMY INSTITUTE OF TECHNOLOGY PUNE 411015

Principal
Army Institute of Technology
Dighi Hills, Pune - 411015

Report AIT Solution Challenge Event (Meet 4)

Event - “AIT Solution Challenge”

27th March 2023

Required Field	**Information to be filled**
Meet Link*	https://meet.google.com/qug-vitu-tsb
Academic Year *	2022-2023
Program driven by *(to be decided by social media coordinator)	Google Developers Students Club , AIT
Program/Activity/Name *	“AIT Solution Challenge”
Select one of the Program Type *(Workshop/Leadership Talk/Motivation Speech/Field Visit/Other)	Other
Select one of the Program Theme *(IPR/Innovation/Entrepreneurship/Startup/Other)	Other
* Start Date	(10:00 PM) 27th March 2023
* End Date	(11:00 PM) 27th March2023
Number of External Participants, If any	None
*Mode of Session delivery (offline/online)	Online
*Number of Student Participants	15+
*Number of Faculty Participants	None
Expenditure Amount, If any	-
*Benefit in terms of learning/Skill/Knowledge obtained	Testing, user feedback analysis, iterative development, collaboration and communication, product finalization.
*Objective	Successfully complete the final phase of the project development by conducting testing, incorporating user feedback, and finalizing the product.
*Faculty Name (Faculty involved in organising event)	Prof. Rupali Bagate (Faculty In-charge)

*Student Name((student involved in organising event)	Samik Choudhury (GDSC Lead)

AIT Solution Challenge

Overview:

The judging stage included a thorough assessment of each team member based on particular criteria. These criteria included the effective fulfilment of deliverables, the quality of code generated, the number of pull requests submitted, deadline adherence, professionalism, and their potential for learning and personal growth. This comprehensive evaluation gave a forum for teams to demonstrate their progress, talents, and unshakable dedication to the project.

The primary objective of the judging round was to provide teams with constructive feedback, pinpoint areas that could benefit from improvement, and cultivate an environment that fosters continuous learning and collaboration. By assessing teams against these criteria, they were given an invaluable opportunity to reflect on their performance, fine-tune their approach, and strive for excellence across various dimensions of their project development.

Ultimately, the combination of the initial meeting and the judging round nurtured a supportive and growth-oriented atmosphere. This allowed teams to leverage the guidance and expertise of their mentors, while also gaining invaluable insights into their own abilities and areas for further development. Through this process, teams were empowered to flourish and excel in their project endeavors.

Attendance and Attendee Details :

15+ Students attended the session and below are the details of some participants -

Students Name	**Registration or Roll No.**
Shantanu Rajmane	22992
Harshal Patil	21129
Pravesh	21195
Mayank	21189
Aditya Kurmi	21188
Aakash	21147
Abrish	21417

Conclusion:

The subsequent judging round assessed teams based on specific criteria, promoting growth, collaboration, and the pursuit of project success. Together, these activities laid the foundation for a constructive and dynamic environment, driving teams towards achieving their goals and maximising their potential.

Principal
Army Institute of Technology