



Google Developer Student Clubs

Discover, Design, Develop





Google Developer Student Clubs

What is Discover, Design, Develop about?

- Opportunity to learn and build together through a series of content on various technologies and dynamic training sessions covering the given cutting-edge technologies.
- A chance to bring forward your innovative solutions solving real world problems in Solutions Challenge.

Solutions Challenge



Android



Web Development



AI/ML



Flutter



Agenda

Content

Milestones

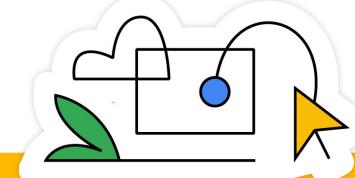
Trainings

Rewards

Timelines



Google Developer Student Clubs





Discover, Design, Develop : ML Content

Week	Content
Week 1	<ul style="list-style-type: none">● Generative AI for Developers Learning Path
Week 2 & 3	<ul style="list-style-type: none">● Intro to Machine Learning● Pandas
Week 4	<ul style="list-style-type: none">● Intermediate Machine Learning● Feature Engineering● Intro to Deep Learning● Computer Vision
Week 5	<ul style="list-style-type: none">● Time Series● Intro to AI Ethics

Note : these are suggestions and you could leverage other content online based on your preference. We will not be tracking course completions, so not to worry on that.

Discover, Design, Develop : Android Content



Week	Content
Week 1	<ul style="list-style-type: none">• <u>Android Basics with Compose - Introduction to programming in Kotlin</u>• <u>Building App UI - Android Basics with Compose</u>
Week 2	<ul style="list-style-type: none">• <u>Android Basics with Compose Display lists and use Material Design</u>• <u>Android Basics with Compose Navigation and app architecture</u>
Week 3	<ul style="list-style-type: none">• <u>Android Basics with Compose Connect to the internet</u>• <u>Data persistence - Android Basics with Compose</u>
Week 4	<ul style="list-style-type: none">• <u>WorkManager - Android Basics with Compose</u>• <u>Compose with Views Android Developers</u>

Note : these are suggestions and you could leverage other content online based on your preference. We will not be tracking course completions, so not to worry on that.

Discover, Design, Develop : Flutter Content



Part 1 : Install

- 1) Try playing with [DartPad](#), the online editor for Flutter and Dart
- 2) Install Use the [installation guides](#) to help get your environment ready

Part 2 : Explore about Flutter

- 3) [Get to know the Flutter docs](#)
- 4) Visit [the samples gallery](#)
- 5) [Get a feel for Dart code](#)
- 6) Coming from another SDK or language?
 - [Flutter conversion guides](#)
 - [What Makes Flutter Different](#)
 - [Using hot reload](#)

Part 3 : Explore Dart & Flutter

- 7) Learn about Dart
 - Visit [Dart.dev](#) the official site for Dart
 - Learn [why Flutter uses Dart](#)
 - Complete the [Dart cheatsheet](#) codelab
- 8) Everything's a widget!
 - Read the [Introduction to Widgets](#)
 - [This guide](#) explains how to compose [layouts](#) with widgets

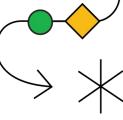
Lot more [here](#)...



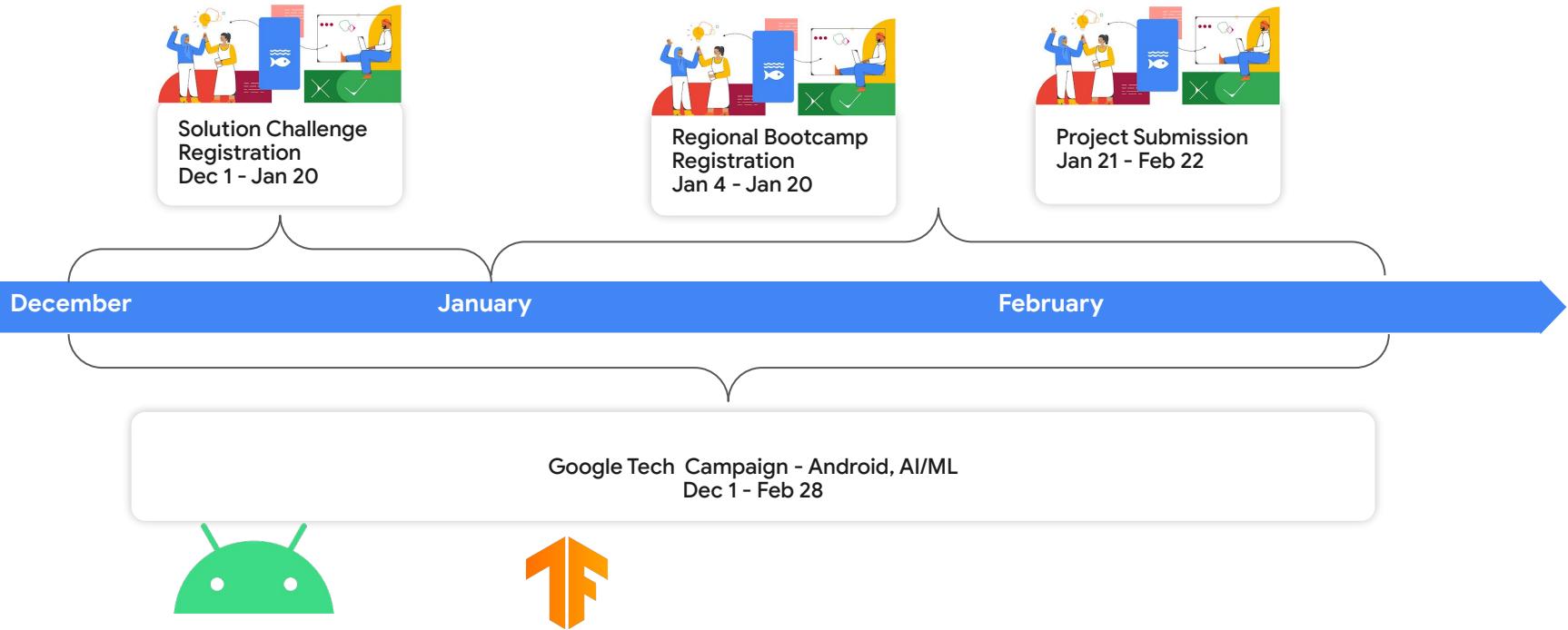
Discover, Design, Develop : Web Content

Week	Content
Week 0	Get started with basics of HTML [Alternate Source] Introduction to HTML (mdn web docs)
Week 1	Get started with basics of CSS [Advanced Optional] Learn Responsive Design
Week 2 and 3	Get started with Angular [Advanced Optional] Optimize your Angular Website
Firebase for Web	
Week 4	<p>Get started with Firebase :</p> <p>Basics :</p> <ul style="list-style-type: none">• Learning Pathway: Build your first web app with Firebase<ul style="list-style-type: none">◦ Codelab: Get to know Firebase for web• Video: Getting Started with Firebase for web• Documentation: Add Firebase to your JavaScript project• Codelab: Firebase for web

Lot more [here...](#)



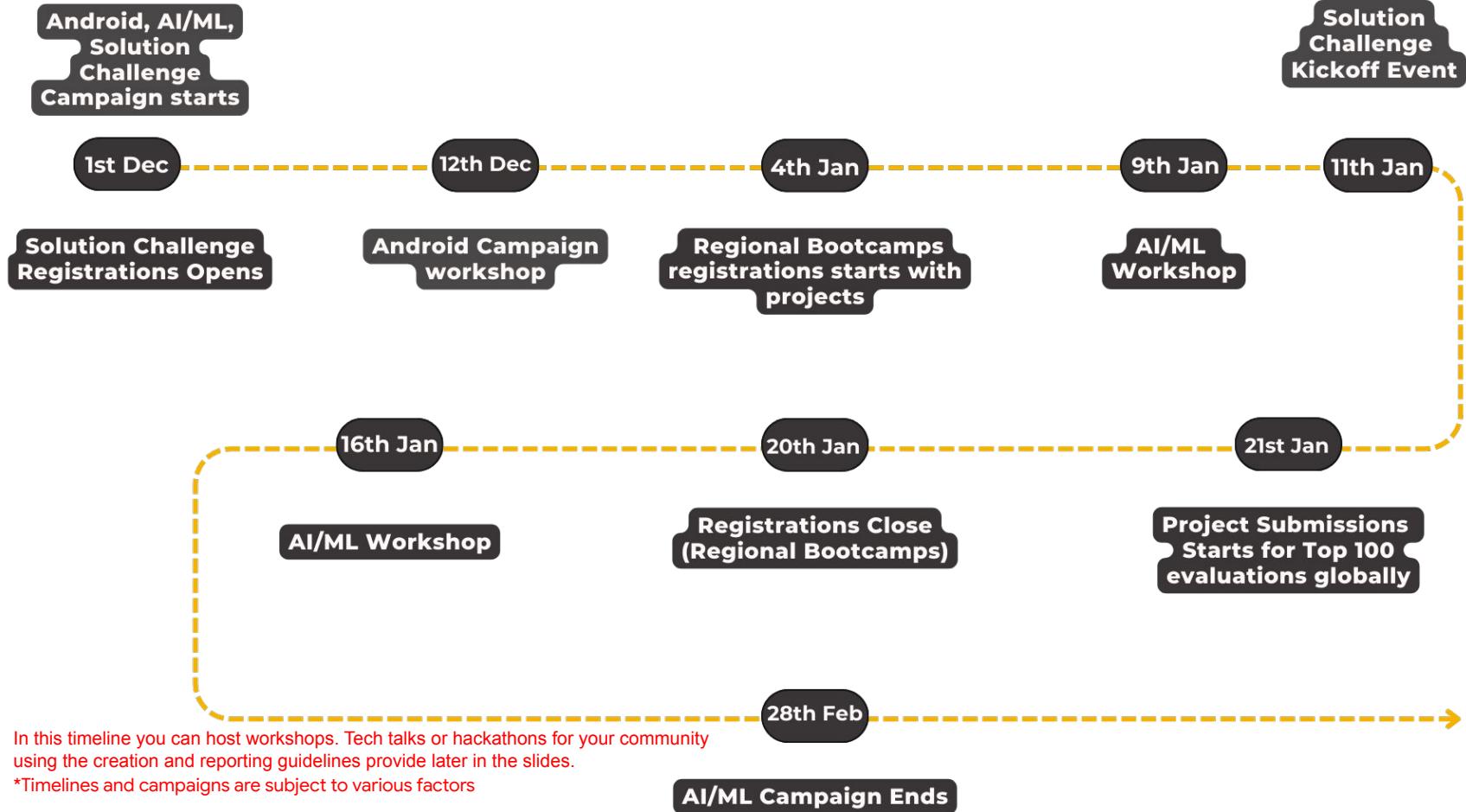
Discover, Design, Develop Timeline : broad level



Note :

- 1) In this timeline you can host workshops, Tech talks or hackathons for your community using the creation and reporting guidelines provided later in the slides.
- 2) *Timelines and campaigns are subject to various factors

Discover, Design, Develop : Detailed Timeline



What do I do as a part of Discover, Design, Develop, Campaign?

As a part of the campaign, you can host [Info Sessions](#), [Workshops](#), [Hackathons](#) to help your community learn about different technologies and build projects using these concepts.



Create and report events on the GDSC Events Platform



Encourage your community to submit solutions as a part of Solution Challenge.



Invite speakers from the community and industry to speak at your events.

You don't need to nominate a Facilitator as a part of campaign. You can directly invite speakers for the events you will be organising.

How does this campaign help me to get a step closer to achieving regional milestones?

Regional Milestone Criteria for successful recognition :

- You belong to either of Platinum, Gold, Silver, Bronze category for Discover, Design, Develop
- You accomplished Tier 1, Tier 2 or Tier 3 in Google Cloud Study Jams
- You completed all the milestones by the Global Team for successful graduation.

What is Solution Challenge?

The Google Developer Student Clubs 2024 Solution Challenge mission is to solve for one of the United Nations' 17 Sustainable Development Goals using Google technology.

Created by the United Nations in 2015 to be achieved by 2030, the 17 Sustainable Development Goals (SDGs) agreed upon by all 193 United Nations Member States aim to end poverty, ensure prosperity, and protect the planet.

We invite Leads to join the competition and/or host workshops to help their club members participate.



Timeline Checklist for Solution Challenge



Getting Started

November - December

- Step 1:** Join a Google Developer Student Club ([anytime!](#))
- Step 2:** Start hosting info sessions, hackathons, and design days ([November-December](#))
- Step 3:** Form a team ([December](#))
- Step 4:** Select United Nations Sustainable Development Goals ([December](#))



Design & Build

December - February

- Step 5:** Identify a Solution ([December](#))
- Step 6:** Learn & build ([January](#))
 - Design the front-end interface
 - Design the back-end technology
- Step 7 :** Submit your solution for Regional Bootcamp
- Step 8 :** Join Regional Bootcamp (*if shortlisted*)
- Step 9 :** Test your solution ([January - February](#))
- Step 10:** Iterate ([January - February](#))

- Step 11:** Record a demo video and [submit project between January 21 and February 22nd](#)

- Step 12:** Top 100 solutions announced ([Early April](#))
- Step 13:** Top 100 mentoring ([April](#))
- Step 14:** Top 10 finalists announced ([Late May](#))
- Step 15:** Top 3 winners announced live on YouTube ([June 27](#))
- Step 16:** Celebrate all the 2023 Solution Challenge participants!

Submissions & Judging

February - June

What are regional bootcamps?

In person help sessions for teams to get guidance from experts to enhance the quality of solutions before the final submission of projects for selection under top 100 solutions.

To participate in the regional bootcamp, interested teams must :

1. Have registered for Solution Challenge before submitting the entry for evaluation.
2. Submit a solution for evaluation between Jan 4th - January 20th.
3. Uses Gen AI and Google Cloud as one of the technologies in the project.

More details on the project selection will be shared in the 2nd week of December*

Solution Challenge

Google Developer Student Clubs



Submission Criteria for Final Project Submissions

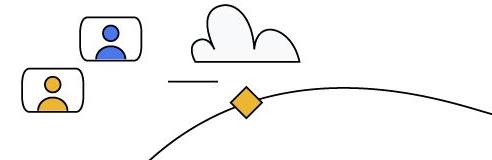
- Project Setup
- Implementation
- Feedback/Testing/Iteration
- Success & Completion of Solution
- Scalability



Note : This is not for regional bootcamp but for final project submission to be evaluated for Top 100

Project Setup : Final Project Submission for Top 100 evaluation

1. Please clearly describe the **challenge you are solving** for using a **problem statement**.
(5 POINTS)
2. What United Nations' Sustainable Development **goal(s) AND target(s)** did you choose for your solution? **What inspired you** to select these specific goal(s) AND target(s)?
(5 POINTS)



Implementation : Final Project Submission for Top 100 evaluation



3. Describe the **architecture** that your team chose for your solution.
What are the **high-level components** of your architecture? What is the **responsibility of each component?**

(5 POINTS)

4. Which specific **products and platforms** did you choose to implement these components and **why?**

(5 POINTS)

Feedback/Testing/Iteration : Final Project Submission for Top 100 evaluation

5. Feedback from users, testing, & iteration

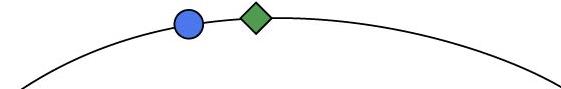
- Walk us through the steps you took to **test your solution with real users** (outside of your team). Provide **three specific feedback points** you received from real users.
- What did you learn and **how did it help improve your solution?** What are **three specific things you implemented and improved** for your solution based on the feedback from users?

(5 POINTS)

6. Code testing and iteration

- Highlight **one challenge you faced while building your code**, including detail on **how you addressed the issue** and the **technical decisions** and implementations you had to make.

(5 POINTS)



Success & Completion of Solution Final Project Submission for Top 100 evaluation

7. How does your solution address the challenge you are looking to solve for? Describe the **success of your solution** using **metrics, goals, and outcomes**. What **Google technologies** are you using to **track usage analytics**? Using relevant (or meaningful) statistics, concrete data or numerical examples where possible. Or, where numbers aren't possible to use, please describe your project's impact using **cause and effect**.

(5 POINTS)

8. Upload a copy of your demo video (maximum 2 minutes). Make sure the video demonstrates a **working application** and **how a user will interact with the solution**. Make sure the video also makes **effective use of the chosen Google products**. Feel free to include infographics or visual representation of the data in your demo video.

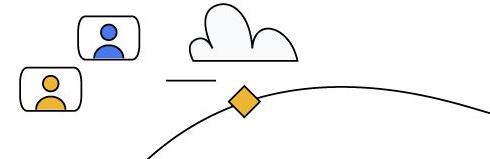
(5 POINTS)



Scalability Final Project Submission for Top 100 evaluation

9. What do you see as the future / **next steps for your project?** How would you expand your solution to **reach a larger audience?**
(5 POINTS)

10. Explain how the **technical architecture** of your solution could support (in its current state or with minor changes) **scaling to a larger audience.**
(5 POINTS)



Prizes (Global)



Top 3 Clubs with the most Solution Challenge project submissions

GDSC Leads and core team receive swag.

Top 3 Clubs that hosts the most Solution Challenge related events

GDSC Leads and core team receive swag.

Top 100

Receive customized mentorship from Googlers and experts to take solutions to the next level, a branded T-shirt, and a certificate.

Final 10

Receive additional mentorship, a swag box, and the opportunity to showcase solutions to Googlers and developers all around the world at Demo Day live on YouTube.

Leads from top 10 receive swag box!

Contest Finalists

In addition to the swag box, each individual from the additional seven recognized teams will receive a Cash Prize per student.

Winnings for each qualifying team will not exceed \$4,000.

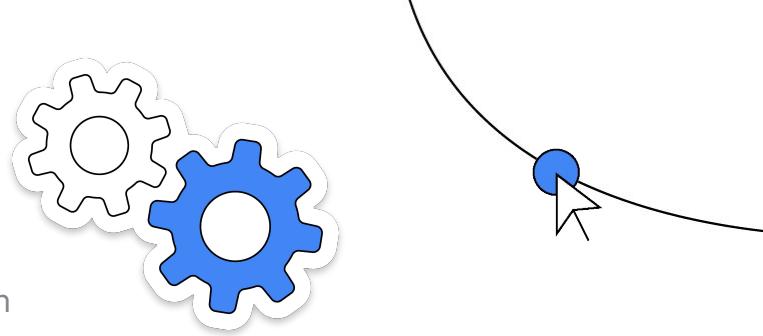
Winning 3

In addition to the swag box, each individual from the Winning 3 teams will receive a Cash Prize and a feature on the Google Developers Blog.

Winnings for each qualifying team will not exceed \$12,000.

Resources

Use the resources and tools to prepare for events and build your Solution Challenge project solutions.



For GDSC Leads & Members

[Tools, Videos, and Learning Materials](#) (One-Pager)

For GDSC Leads only [*limited access*]

[Brand Guide](#)

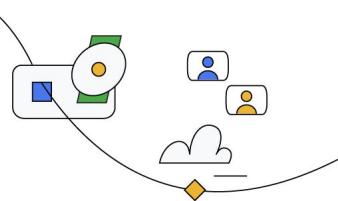
[Design Day Guide](#)

[Hackathon Guide](#)

[Info Session Presentation](#)

[Google Product Learning Content via CLP](#)





GDSC India Milestones - Platinum

Activity	Action Expected from you	Timeline	Tracking
Registrations	100 Registrations in Solution Challenge from your campus	1st Dec - 20th Jan	Will be tracked through chapter name
Regional Bootcamp	8 teams invited for regional bootcamp. Strong preference for team working on AI/ML will be given.	4th Jan - 20th Jan	Will be tracked through chapter name and other Bootcamp criteria as mentioned here .
Project Submission	<ul style="list-style-type: none"> • 15 projects submitted during Project Submission Phase for evaluation under top 100. • 1 project shortlisted in Top 100 globally • 1 project shortlisted in Top 10 globally 	21st Jan - 22nd Feb	Will be tracked through chapter name
Event Creation & Reporting	<p>3 events created & reported on GDSC Events Platform with following tags:</p> <ul style="list-style-type: none"> • 1 on AI/ML using Machine Learning as event “tag” • 1 on Android using “Android” as event “tag” • 1 on Solution Challenge using “Solution Challenge” as event “tag” 	1st Dec - 28th Feb	<p>Will be tracked through chapter name with the any event “type” and “topic” as “Machine Learning”, “Android”, “Solution Challenge”.</p> <p>You can host events beyond these topics, however it will not be tracked under your milestones.</p>



Recognition for Platinum



1 Google Home

20 T-Shirts

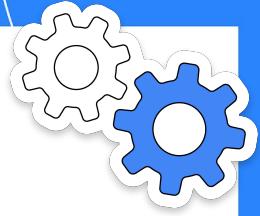


50 Stickers

GDSC India Milestones - Gold



Activity	Action Expected from you	Timeline	Tracking
Registrations	100 Registrations in Solution Challenge from your campus	1st Dec - 20th Jan	Will be tracked through chapter name
Regional Bootcamp	8 teams invited for regional bootcamp. Strong preference for team working on AI/ML will be given.	4th Jan - 20th Jan	Will be tracked through chapter name and other Bootcamp criteria as mentioned here .
Project Submission	<ul style="list-style-type: none"> 15 projects submitted during Project Submission Phase for evaluation under top 100. 1 project shortlisted in Top 100 globally 	21st Jan - 22nd Feb	Will be tracked through chapter name
Event Creation & Reporting	<p>3 events created & reported on GDSC Events Platform with following tags:</p> <ul style="list-style-type: none"> 1 on AI/ML using Machine Learning as event “tag” 1 on Android using “Android” as event “tag” 1 on Solution Challenge using “Solution Challenge” as event “tag” 	1st Dec - 28th Feb	<p>Will be tracked through chapter name with the any event “type” and “topic” as “Machine Learning”, “Android”, “Solution Challenge”.</p> <p>You can host events beyond these topics, however it will not be tracked under your milestones.</p>



Recognition for Gold

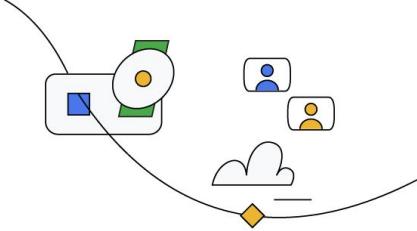


1 Headphone

20 T-Shirts

50 Stickers

GDSC India Milestones - Silver



Activity	Action Expected from you	Timeline	Tracking
Registrations	80 Registrations in Solution Challenge from your campus	1st Dec - 20th Jan	Will be tracked through chapter name
Regional Bootcamp	5 teams invited for regional bootcamp. Strong preference for team working on AI/ML will be given.	4th Jan - 20th Jan	Will be tracked through chapter name and other Bootcamp criteria as mentioned here .
Project Submission	10 projects submitted during Project Submission Phase for evaluation under top 100.	21st Jan - 22nd Feb	Will be tracked through chapter name
Event Creation & Reporting	<ul style="list-style-type: none"> • 3 events created & reported on GDSC Events Platform with following tags: • 1 on AI/ML using Machine Learning as event “tag” • 1 on Android using “Android” as event “tag” • 1 on Solution Challenge using “Solution Challenge” as event “tag” 	1st Dec - 28th Feb	<p>Will be tracked through chapter name with the any event “type” and “topic” as “Machine Learning”, “Android”, “Solution Challenge”.</p> <p>You can host events beyond these topics, however it will not be tracked under your milestones.</p>



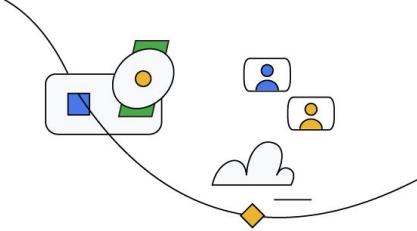
Recognition for Silver



20 T-shirts

50 Stickers

GDSC Milestones - Bronze



Activity	Action Expected from you	Timeline	Tracking
Registrations	50 Registrations in Solution Challenge from your campus	1st Dec - 20th Jan	Will be tracked through chapter name
Regional Bootcamp	3 teams invited for regional bootcamp. Strong preference for team working on AI/ML will be given.	4th Jan - 20th Jan	Will be tracked through chapter name and other Bootcamp criteria as mentioned here
Project Submission	5 projects submitted during Project Submission Phase for evaluation under top 100.	21st Jan - 22nd Feb	Will be tracked through chapter name
Event Creation & Reporting	<p>3 events created & reported on GDSC Events Platform with following tags:</p> <ul style="list-style-type: none"> • 1 on AI/ML using Machine Learning as event “tag” • 1 on Android using “Android” as event “tag” • 1 on Solution Challenge using “Solution Challenge” as event “tag” 	1st Dec - 28th Feb	<p>Will be tracked through chapter name with the any event “type” and “topic” as “Machine Learning”, “Android”, “Solution Challenge”.</p> <p>You can host events beyond these topics, however it will not be tracked under your milestones.</p>



Recognition for Bronze



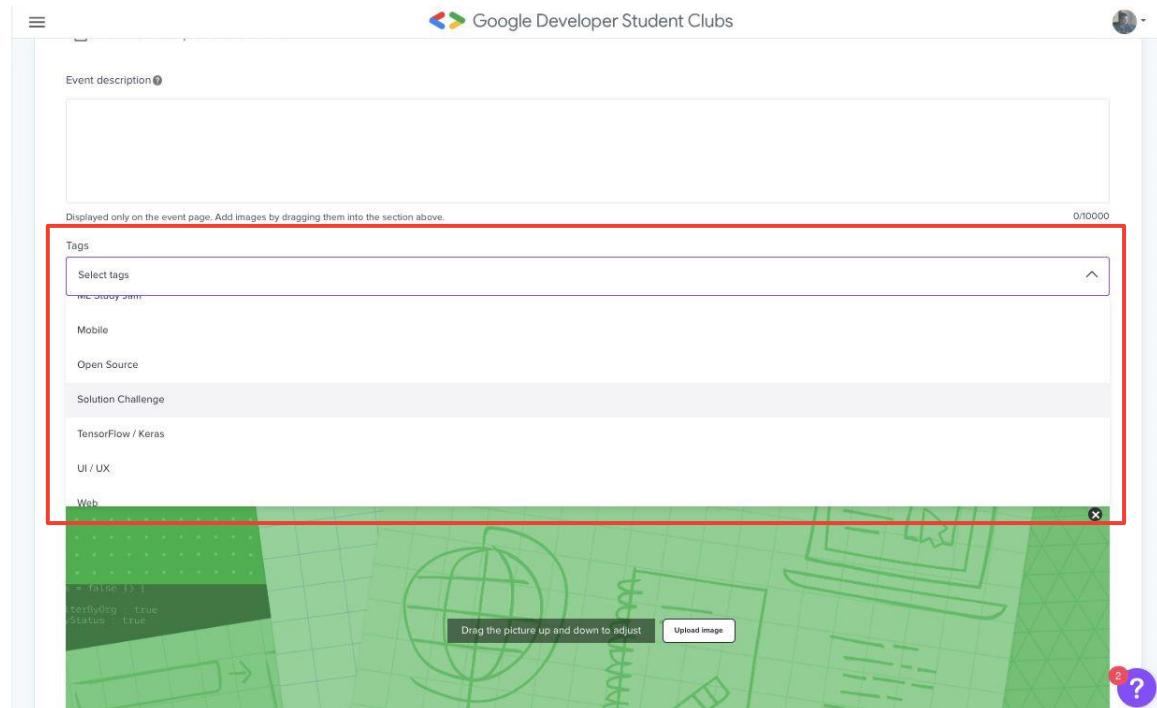
15 T-Shirts

50 Stickers

How to select tags while event creation & reporting

Steps:

1. On your GDSC Events Dashboard, click on “**New Event**” button and select an event type from the dropdown.
2. On next page fill the event details in the form, while filling the details make sure to **select correct tags** or else it will not be considered while tracking your milestones.
3. To select the tag navigate to “**Tags**” input in the form and select either “Android” OR “Machine Learning” OR “Solution Challenge” from the dropdown, based on your event.



Report your events with correct details

While reporting event make sure you provide correct details about your event.

Also while filling in the reporting form you will be asked to fill in the attendees count in 2 different modes “In-Person” and “Virtual”, make sure you give correct numbers as per your event type.

You can get the event survey link in the following ways:

1. You will receive form link on your email once the event is completed.
2. You can also find the link by navigating to “Forms” tab of your completed event.

The screenshot shows a web-based form titled "GDSC India Welcome Event - Day 01". At the top left is a user profile icon with the name "Hello, Pratik!". On the top right are links for "Dashboard", "About GDSC", "Chapters", "Upcoming events", and a search icon. The main content area has a heading "GDSC India Welcome Event - Day 01". Below it are two required input fields with red borders: "Number of In-Person Attendees (if it was a fully virtual event, enter 0)*" and "Number of Online/Virtual Attendees (if it was a fully in person event, enter 0)*". There is a question "Which of these technologies did the event cover? (Choose all that apply)*" followed by a multi-select input field. A section asks "Did you use any content provided by the GDSC program for this event?" with "Yes" and "No" radio buttons. A note at the bottom says "Have an inspirational story? Please use this form to submit the story: goo.gl/CommunityStory". A blue "Submit" button is located at the bottom right of the form area.