

# 2024 GDSC Solution Challenge

## [Resources]

Welcome to the Google Developer Student Club (GDSC) Solution Challenge! Thank you for participating in this challenge to address the Sustainable Development Goals (SDGs) set up by the United Nations. The [17 SDGs](#) help the planet reach a common blueprint for peace and prosperity for our fellow human beings.

Your submissions to the Solution Challenge can use a very wide variety of computing resources and technologies such as mobile devices, user experience design, cloud computing services, databases, smart devices, security controls, machine learning, etc. By collaborating with your teammates, you will use these tools to help you complete your Solution Challenge submission.

You should always remember your role as a developer, which is to solve problems and help users by writing useful software. You have to be a problem solver. You have to understand the user problem deeply to derive a set of possible and viable solutions. And like any good engineer, you have to be aware of the constraints of your environment that affect your possible solutions, such as delivery deadlines, financial issues, computing resources, testing strategies, etc.

Here's a good set of learning resources for your submissions:

- [developers.google.com](https://developers.google.com) - learning content to develop with Google technology
- [developers.google.com/learn](https://developers.google.com/learn) - collections of learning content
- [developers.android.com](https://developers.android.com) - all things Android
- [angular.dev](https://angular.dev) - tutorials and guides to build your web development framework
- [flutter.dev](https://flutter.dev) - how to build cross-platform apps from one codebase
- [cloudSkillsBoost.google](https://cloudskillsboost.google) - hands-on labs for Google Cloud services
- [developers.google.com/machine-learning](https://developers.google.com/machine-learning) - Google ML learning courses

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## LEARNING RESOURCES

## INTRODUCTORY

- FREE Google Domains (*coming soon!*)
- FREE Google Cloud Credits (*coming soon!*)
- [Introduction to IT](#)
- [Object-Oriented Programming](#)
- [How the Internet works](#)
- [How the Web works](#)
- [Computational Thinking](#)
- [Creativity and Innovation](#)
- [Tech News sites](#)

## COMMUNICATION SKILLS

- [Imposter Syndrome](#)
- [Problem-Solving](#)
- [How to be a Collaborator](#)
- [How to Write Well](#)
- [Public Speaking Tips](#)
- [Improve your Public Speaking](#)
- [The Art of Public Speaking](#)
- [Being a Leader](#)

## ANGULAR, ANDROID, and FLUTTER

- [Intro to Angular Workshop](#)
- [Angular Tutorials & Guides](#)
- [Flutter Tutorials](#)
- [What is Firebase](#)
- [Firebase](#)
- [Firebase Demo Videos](#)
- [Firebase in a Weekend - Android](#)
- [Firebase Android - Build a Friendly Chat](#)
- [Android Basics with Compose](#)
- [Modern Android and Firebase](#)
- [How to add Android Authentication using Firebase](#)
- [Android Sensors Overview](#)
- [Android Wear OS](#)
- [Jetpack Compose](#)

- [Sensors Toolbox](#)

## **MACHINE LEARNING**

- [Introduction to Generative AI](#)
- [Simple ML for Google Sheets tutorial](#)
- [MediaPipe](#)
- [Bard](#)
- [Bard Help Center](#)
- [TensorFlow](#)
- [TensorFlow documentation](#)
- [ML Decision Forests course](#)
- [Kaggle](#)
- [PaLM API](#)
- [MakerSuite](#)
- [Machine Learning Education](#)
- [Machine Learning course - Andrew Ng](#)
- [Python for Beginners](#)
- [Free Machine Learning Courses](#)
- [Machine Learning for Android](#)
- [Data Science](#)
- [Visual Recognition for Java](#)

## **CLOUD COMPUTING**

- [FREE Cloud Services](#)
  - [Intro to Cloud Computing](#)
  - [Google Cloud Products](#)
  - [Databases](#)
  - [SQL Courses](#)
  - [Cloud Firestore](#)
  - [Spring Boot](#)
  - [Java Specialists newsletter](#)
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# COMMUNITY RESOURCES

## GITHUB

- [PaLM GitHub](#)
- [Angular GitHub](#)

## DISCORD

- [Google for Developers Discord](#)
- [PaLM Discord](#)
- [Angular Discord](#)