

DataByte

The Official Machine Learning and Data Science Club of NITT

FIRST-YEAR INDUCTION

TASK-1

APP DEVELOPMENT

Problem Statement:

1. Tic Tac Toe Game:

Building a game app requires the developer to be multi-skilled. Developing a game app provides the developer a very efficient way of learning new concepts and at the same time, also a lot of fun.

Program a two-person game of Tic -Tac- Toe. The game is played on a three by three board. Each player has a marker. One player has an 'X', the other an 'O'. Players alternate turns to place their marker on the board. The first player to get three in a row either diagonally, horizontally, or vertically, wins the games. In the event all squares are taken on the board without a winner then it is a tie.

You will have to showcase your knowledge of widgets, loops and conditionalities in the code developed by you. You can use a language of your own choice for the implementation such as flutter, java etc.

Judging criteria:

- Game layout and design
- Should work for all combinations and accuracy of results shown
- Options, widgets provided and the effective working of options

Brownie Points: (Optional, but highly recommended to improve chances of induction)

- Option for single player mode as well.
- Difficulty level option in single player mode vs computer.
- Implementation of a points scoring system based on factors such as speed of victory and difficulty level.

2. Task Scheduler and Manager:

Build an app to assign and manage start, progress and completion of personal tasks. The app must contain features such as a profile page, todo-list, calendar, progress reports. The language for development is your choice.

Judging criteria:

- Implementation and design of above-mentioned features.
- Accuracy of progress report statistics and tracker.

Brownie points: (Optional, but highly recommended to improve chances of induction)

- Implementation of a notifications tab.
- Option of task prioritization and adjustment of notifications and to-do list accordingly.
- Implementation of personal settings tab which can include options of your choice.

Submissions:

Host the website in any platform, say Github pages and submit the repository link containing the complete code with a well structured README file explaining in detail your work and features implemented.

Resources:

Flutter:

<https://flutter.dev/learn>

<https://www.youtube.com/c/flutterdev/featured>

GetX package:

[get | Flutter Package \(pub.dev\)](#)

Dart:

[Dart documentation | Dart](#)

<https://www.youtube.com/watch?v=5rtujDjt50I&list=PLlxmoA0rQ-LyHW9voBdNo4gEEIh0SjG-q>

Kotlin:

[Document Kotlin code: KDoc | Kotlin Documentation \(kotlinlang.org\)](#)

[https://www.youtube.com/watch?v=Org0vh-](https://www.youtube.com/watch?v=Org0vh-VSgA&list=PLsyebzWxl7rooJFZh3qPLwVROovGCfh)

[VSgA&list=PLsyebzWxl7rooJFZh3qPLwVROovGCfh](https://www.youtube.com/watch?v=Org0vh-VSgA&list=PLsyebzWxl7rooJFZh3qPLwVROovGCfh)