Android Task List - 1

Motive of the following series of tasks is to get you familiar with Android Development. Basic knowledge of OOPS and a programming language is enough to get started.

Resources: Few resources and tutorials for learning→

- **Roadmap**: [Android Developer Roadmap: Learn to become an Android developer](#)
- **Youtube**: [CodingWithMitch](#) , [Coding in Flow](#) , [Google Developers IN](#) , [Google Developers.](#)
- **Udemy:** [Android O course by Rob Percival](#) (Will be provided)
- Udacity ([Free](#) or Nanodegree)
- [Documentation](#) and [Pathways](#) by Google

(*We recommend you to make best out of free courses and not paying huge amount and learning*).

Language and Tools: Java or Kotlin and [Android studio](#)

Tasks->

Task 1:   **Deadline:** Wednesday, 10 April 2021

Make a basic calculator for arithmetic operations (+,-,/,*) ([sample ui](#))
  bonus*: if multi-operand (can handle more than one operation on multiple operands)*

   Goal is to learn: Layouts and Views

 Deadline: Wednesday, 10 April 2021

Task 2:   **Deadline:** Monday, 17 April 2021

Make an application having a button for each of the following operations:

- Date Picker: Selected date becomes the text of the button
- Custom Alert dialog (Don't use inbuilt ones)
- Snackbar: Display random text
- Toast: Display random text
- Progress bar: Use the custom library mentioned below. (The progress bar must stop after 5 sec. Use countdown timer)

External Library for progress bar:

https://github.com/81813780/AVLoadingIndicatorView

Goal is to learn: The mentioned views and Library usage

Task 3:   **Deadline:** Monday, 1 May 2021

Make a quiz app with following:
- 10 Questions with timer
- Questions fetched from firebase database (Refer Meme-O-Mania app for quiz UI. Leave the ImageView)
- Provide options for Email , gmail ,Facebook SignUp/ Login .
- Every question node must have 6 subnodes: 1 for question, 1 for correct choice and 4 for the 4 choices.
- Store scores on Shared Preferences during quiz also push to firebase after every MCQ answered
- Display user scores under profile page
- When app closed or minimised submit the quiz

Goal is to learn: Firebase , Shared Preference and Activity lifecycle

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Task 4:   **Deadline:** Monday, 10 May 2021

Use the following api to fetch the details of dog breed and display it in the app. Use your own creativity for the User Interface.

API GET

https://dog.ceo/api/breeds/list/all

https://dog.ceo/api/breed/{breed_name}/images/random

The first url gives you the list of all the breeds of the dog. After fetching this, you need to fetch the specific image for the dog and use Glide/Picassso to view in it into the ImageView. Fetch and Cache the data in the phone which will not require any other assistance of the database and will just require internet for gliding the image in the imageview. Use the retrofit library for calling the API.

Goal is to learn: Data Caching , API Handling , Retrofit and Image loading using library

Basic Guidelines:

- Be as innovative as you can for the UI elements. No restrictions.
- Refer to profession applications or other sources for UI assistance.
- **Adhere to the deadline.**
- Prefer to ask your doubts on the group itself. Your doubts could be someone else's doubt as well.
- Upload your code on the Github repo. (Details and guidelines will be provided shortly).
- Upload a screen recording of the app on the group.
- More tasks will be uploaded soon.