Track-Android01

Final Product :

Make an android app for taking voice notes. The user must be able to log in and save all his notes locally. With basic features as set reminders with some notes, etc.

Frontend :

- The front end should consist of a homepage to display users' notes alphabetically or in chronological order.
- Categorize voice notes.
- Community page to share their best voice notes.

Backend :

- Create APIs to provide the required data to the frontend part.
- Create API to manage to filter voice notes.

Extras :

- Minimal and good-looking UI.
- Additional reminder for revising or going through the stored notes again.
- You can take the additional step to integrate the speech to text API and store the notes in readable text format additionally.
- Live transcript while recording the audio(live captions)

Recommended Tech Stack :
Java / Kotlin / Flutter, NodeJS, MongoDB, Firebase (as per your choice)

1. **<u>Front End Web Technologies</u>** :

" The best way to learn is by implementing things, so instead of just reading these, do try implementing each of them."

Step 0: Basics
1. Java and Kotlin have mainly used languages for android development. From them google has officially announced recently that kotlin should be officially used for android dev but for beginners, it is better to start android dev using java as a lot of research has already been done on this language so whenever you will get stuck, you can get the solution for that error easily (in case of java), on the other hand, kotlin is new so research has not been done yet on it so it will be that easy to code in it as compared to java.
2. Now to start android dev you should have the basic knowledge of java for a better understanding of the code which you will be writing...instead of learning from videos go for the book **Head First Java**. It will give you a good fundamental knowledge of the language.
3. Now you are ready to proceed and install an android studio and learn all the components it provides. Learn about various kinds of components you can use in apps, dependencies, Android SDK, etc. You can learn the basics of the android studio from the below links:-
   [Basics of android studio](#)
   [Android Studio Basics](#)

4. Now for the front end, you will also need to learn XML and the android studio has an inbuilt database known as SQLite which is used for in-app storage.
5. Now you are ready for making basic apps like calculator, tic tac toe game, etc. Building projects are really essential for developers as working on projects not only will help you to learn about new software but will also enhance your error solving capabilities which is the most important skill for a developer.
6. Whenever you face error go to this site and mostly you will get the answer:-
   StackOverflow
7. After making some basic apps move on to make complex apps using some of the below-given software:-
8. Firestore can also be integrated into your app and you can learn how to use the database part from the following link:-
   Firestore
9. Those interested in firestore documentation click the below link:-
   FirestoreDocumentation
10. Some of you might want to integrate ML models when you will make complex apps, you can do it by using tensorflowLite:-
   TensorflowLiteDocumentation
11. Continue making projects using various software and gather all the knowledge.

Follow the following links.

1. **https://www.udacity.com/course/android-basics-user-interface--ud834**

2. https://www.youtube.com/channel/UCVHFbqXqoYvEWM1Ddxl0QDg

3. **https://developer.android.com/**

4. **https://www.linkedin.com/posts/vibha-thakur_best-youtube-channels-to-learn-android-development-activity-6801910081886715904-O488/**

5. **https://www.udacity.com/course/android-basics-make-your-first-app--ud834**
   https://www.udacity.com/course/android-basics-button-clicks--ud836
   https://www.udacity.com/course/android-basics-multi-screen-apps--ud839
   https://www.udacity.com/course/android-basics-networking--ud843
   https://www.udacity.com/course/android-basics-data-storage--ud845