TED UNIVERSITY

2023 SPRING

CMPE 492 Senior Project II

User's Manual

Project Name: Receipt Analyzer

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Section: 01

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Date of Submission: 08/05/2023

Aim of the Report

The main goal of this report is to guide the user about the working mechanism of the project developed. Therefore, this report contains two parts which are installation and setup instructions.

Installation Instructions

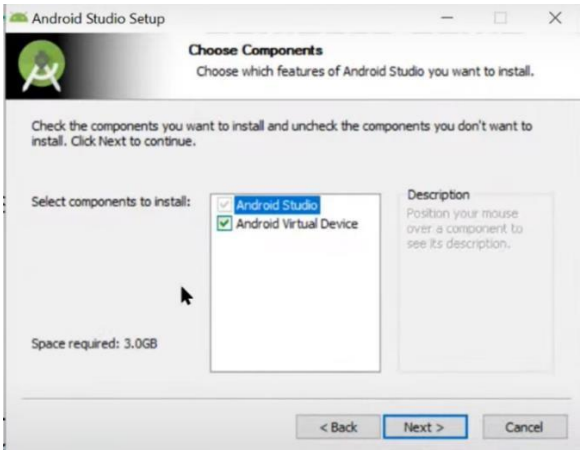
Since Receipt Analyzer project is a mobile application, Android Studio IDE should be installed on a computer as a first step. The installation can be completed by following the below steps:

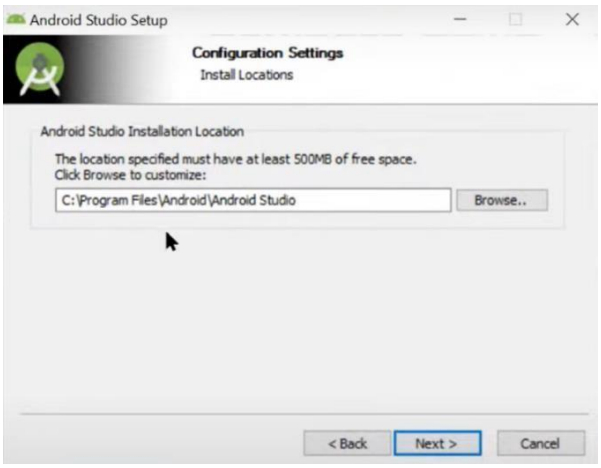
1) In order to use Android Studio, SDK version of Java should be installed on the computer. To get this information, **java -version** or **java --version** can be executed on the command prompt (CMD) as below:

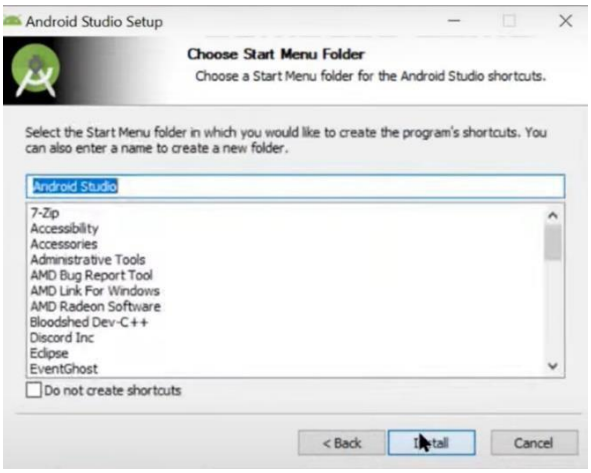
```
C:\Users\HP>java -version
java version "1.8.0_251"
Java(TM) SE Runtime Environment (build 1.8.0_251-b08)
Java HotSpot(TM) 64-Bit Server VM (build 25.251-b08, mixed mode)

C:\Users\HP>
```

If it is not available, the appropriate SDK version could be downloaded from this link: https://www.java.com/tr/download/

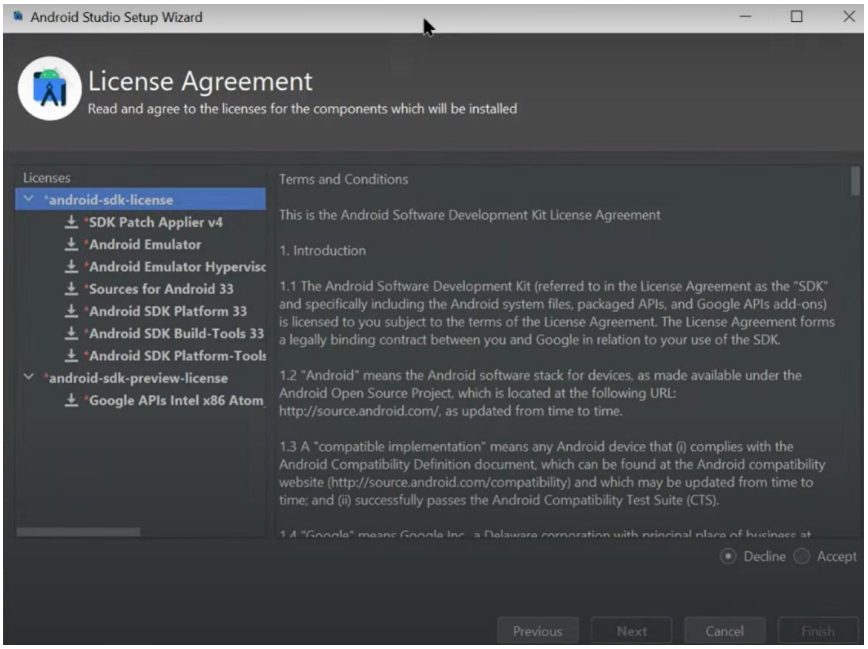
2) Official website of Android Studio https://developer.android.com/studio is visited to download the latest version of the IDE. Download button is clicked on.
3) After downloading the program setup procedure is followed by pressing next and install buttons as follows:







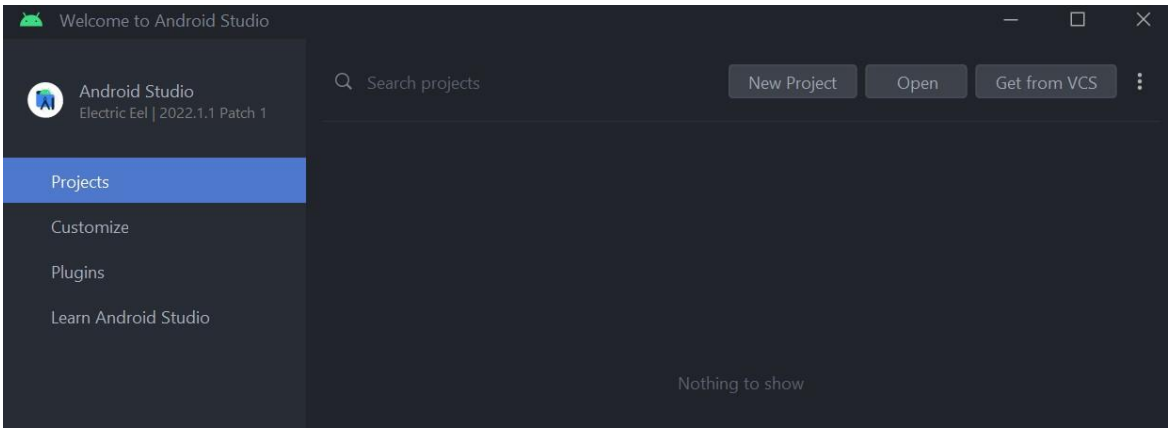
4) Then, finish button is clicked on to complete the setup. A welcome page is displayed on the screen. After pressing next, **Standard** option of Android Studio is selected under "Install Type" part. In each screen, next option is used. Several configurations can also be completed such as selecting UI theme. As a last step, license agreement is accepted by pressing accept button.



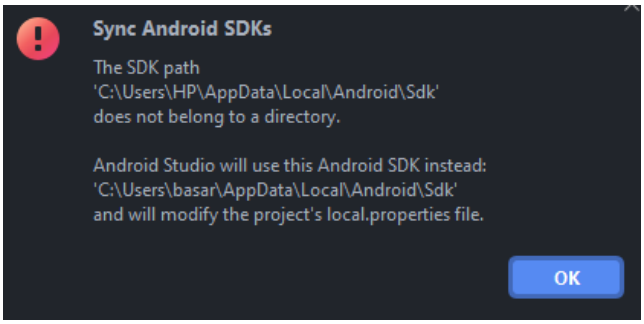
5) Installation of the Android Studio is completed successfully.

Setup Instructions

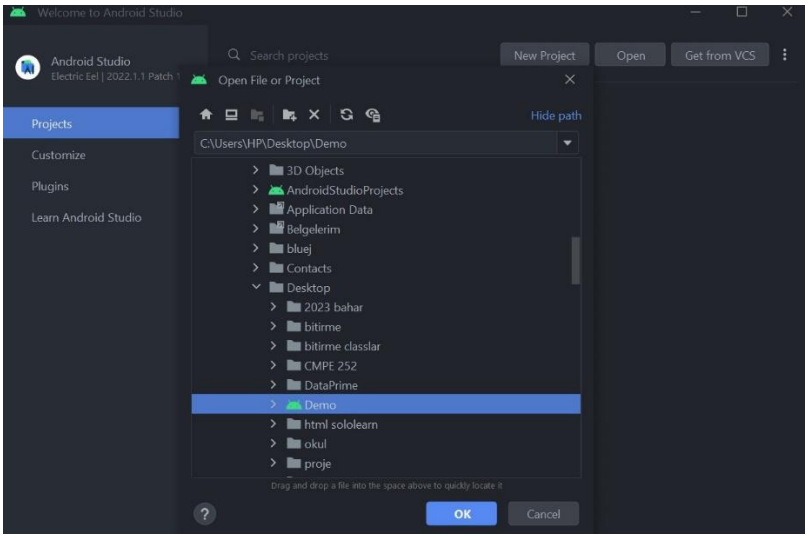
As a first step, the source code folder which has a name "**Demo**" in the USB flash disk is moved to the desktop of the local computer. After that, the project is selected by using "Open" part in the Android Studio:



If a warning message is encountered as below, OK button should be clicked without a care.

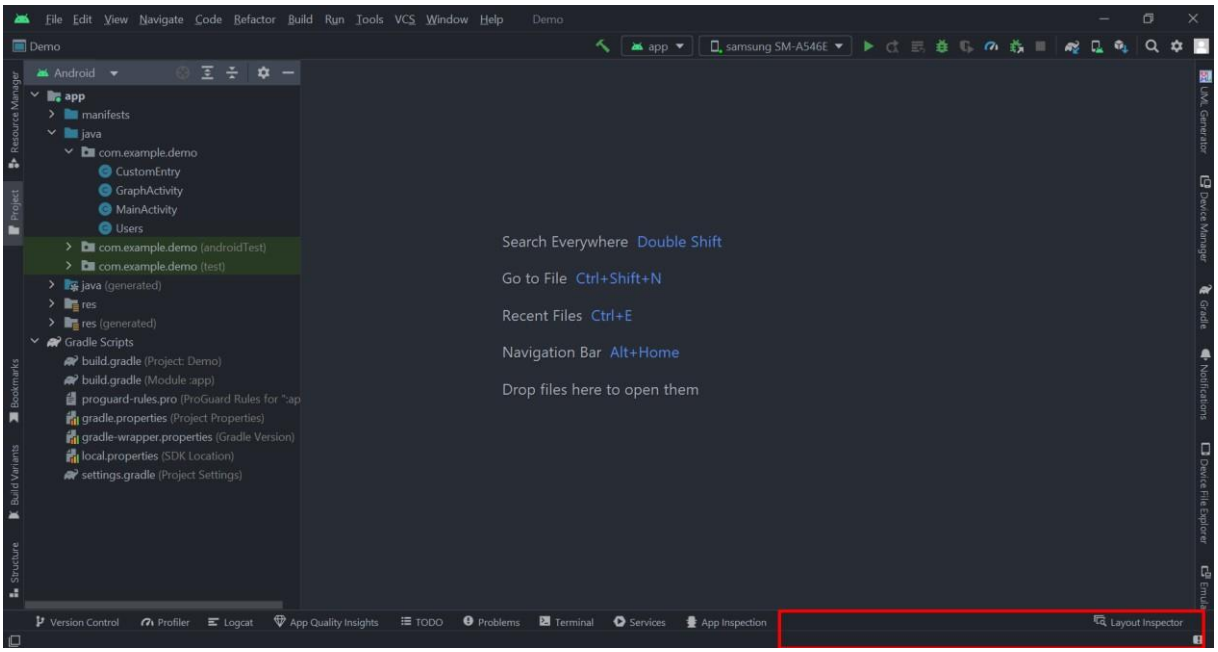


The project is selected from the desktop directory (Users/YourLocalComputerName/Desktop/Demo). The Android project icon with its' name is appeared on the directory to click as follows:

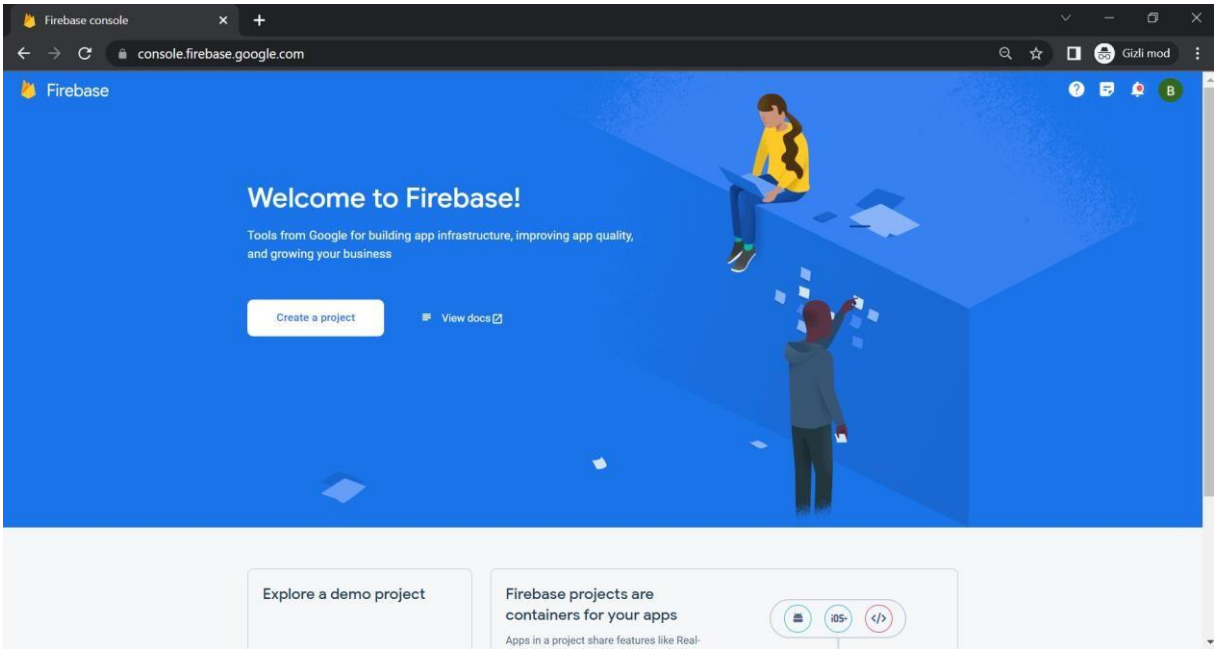


After clicking the "OK" button, the system is waiting to be installed. This process may take some time.

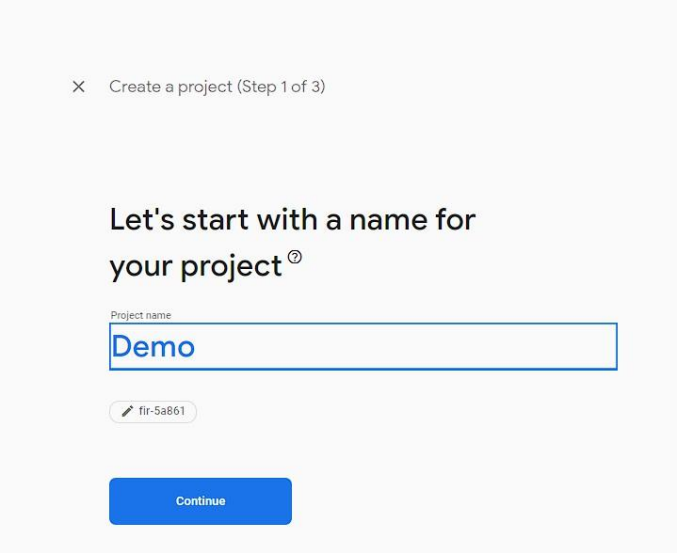
On the lower right screen, the necessary dependencies installations can continue at the first screen opening. It can be understood that the system is ready when the lower right attachment is blank as in the screenshot.



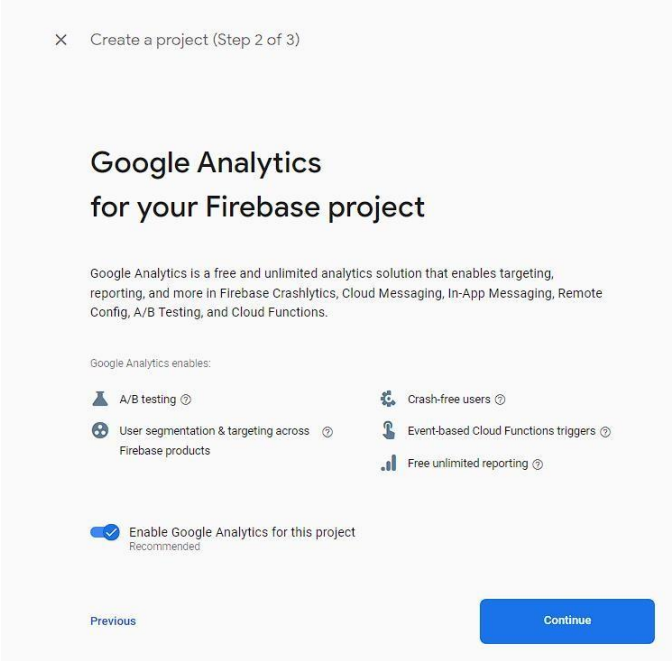
Now, the connection with Realtime Database should be handled. From the https://console.firebase.google.com/ link, user has to login to the system with a Google account (Gmail). From the console screen, a new project should be created by pressing “Create a project” button.



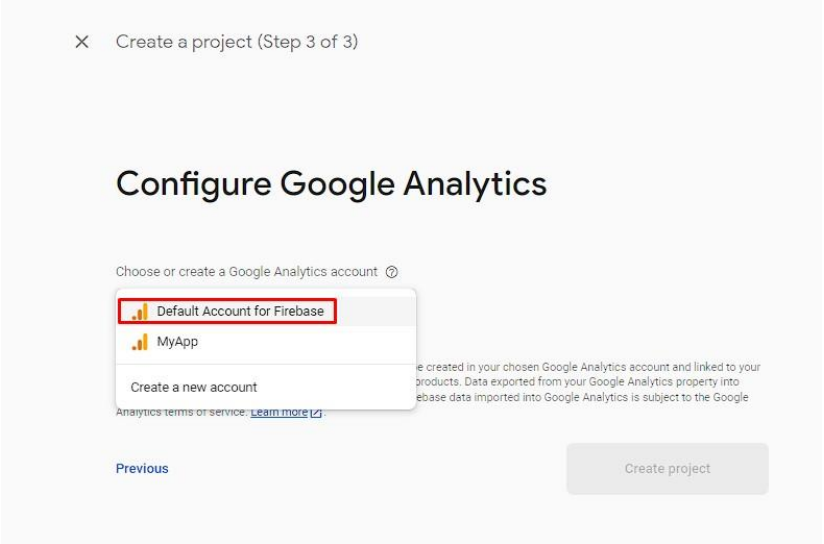
From the new screen, project name is created as below:



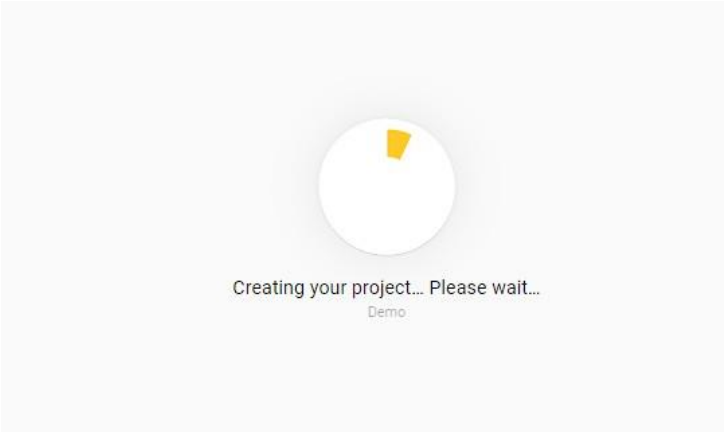
Continue button is clicked on.



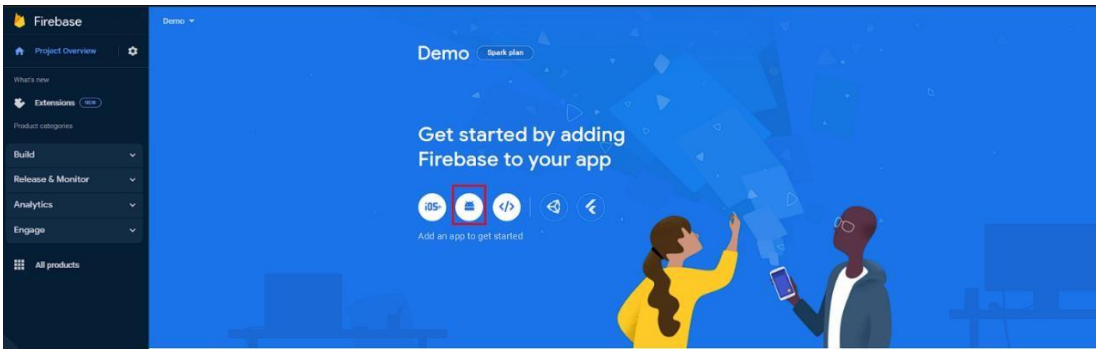
“Default Account for Firebase” option is selected and Create project button is clicked.



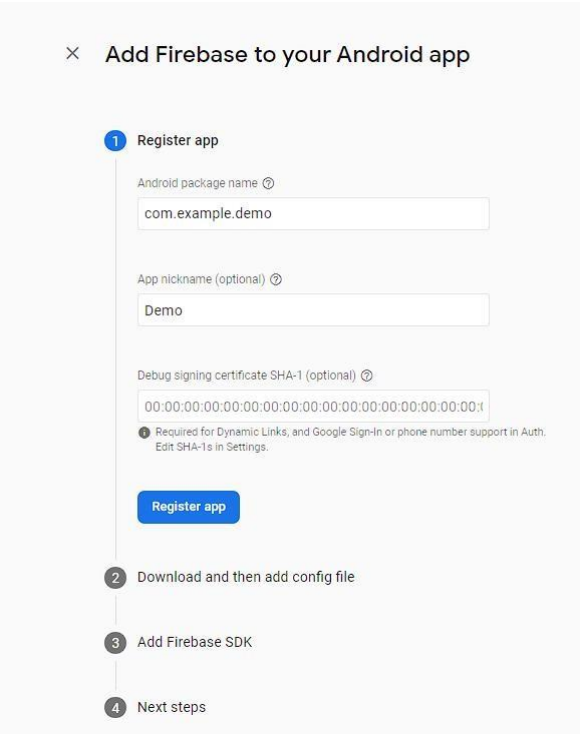
Creating the project is process is started.



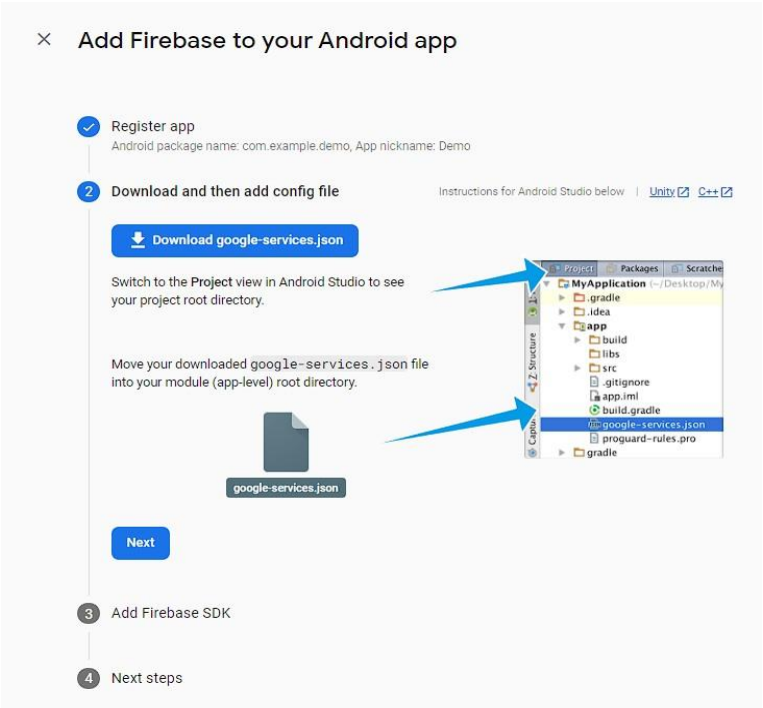
After that, Android icon is selected in the below page:

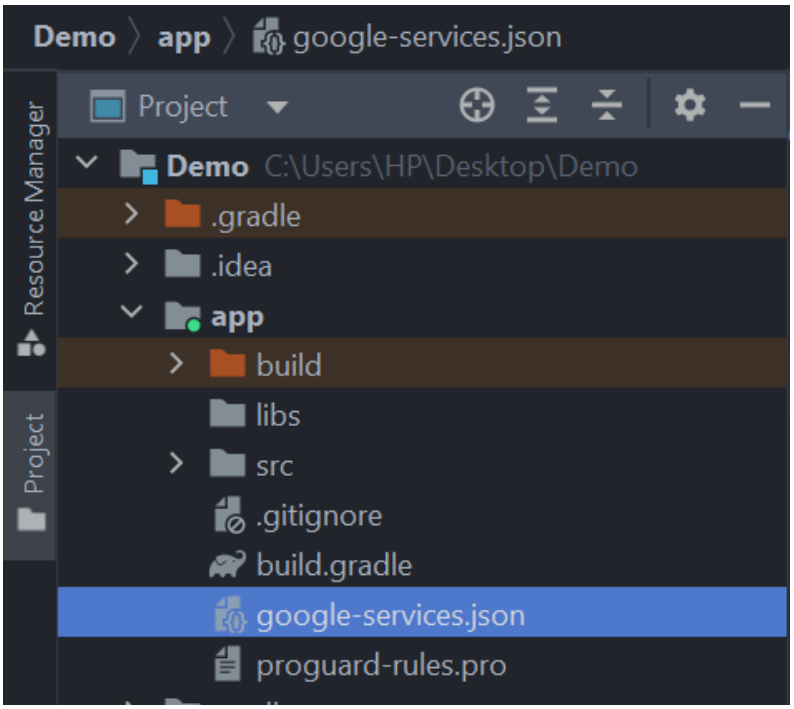


The registration process is completed by filling package name and nickname. Then Register app button is clicked.

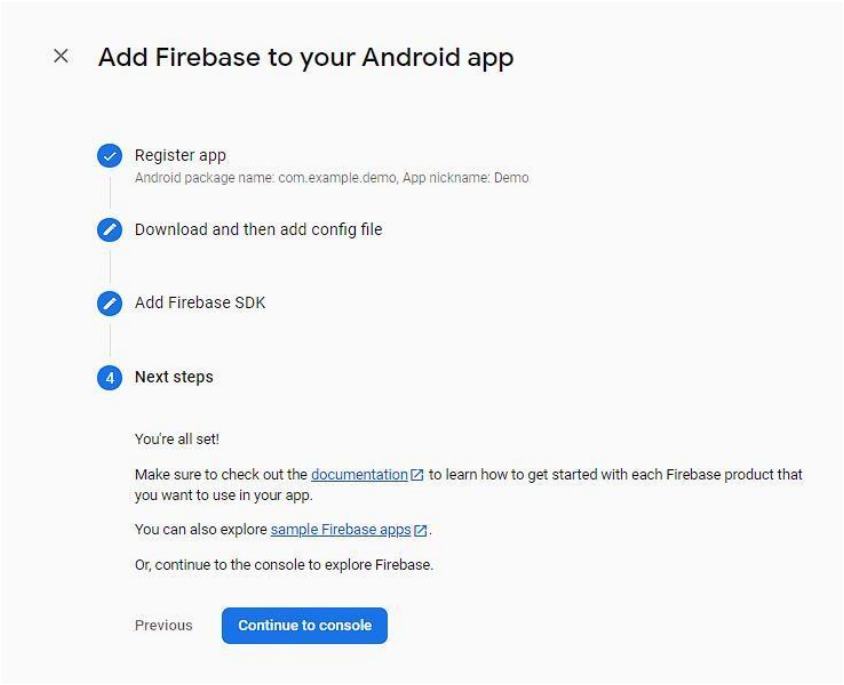


In the second part, **google-service.json** file is downloaded to the computer. As described in the figure, it is important to switch to the “Project” section in Android Studio. Then, the downloaded JSON file is moved to the app directory.

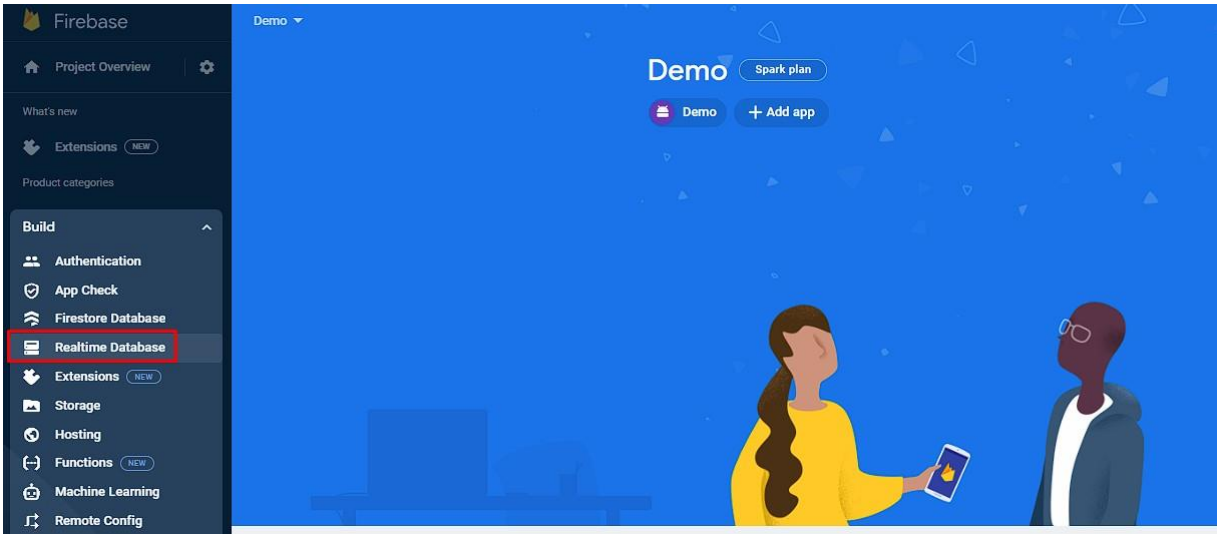




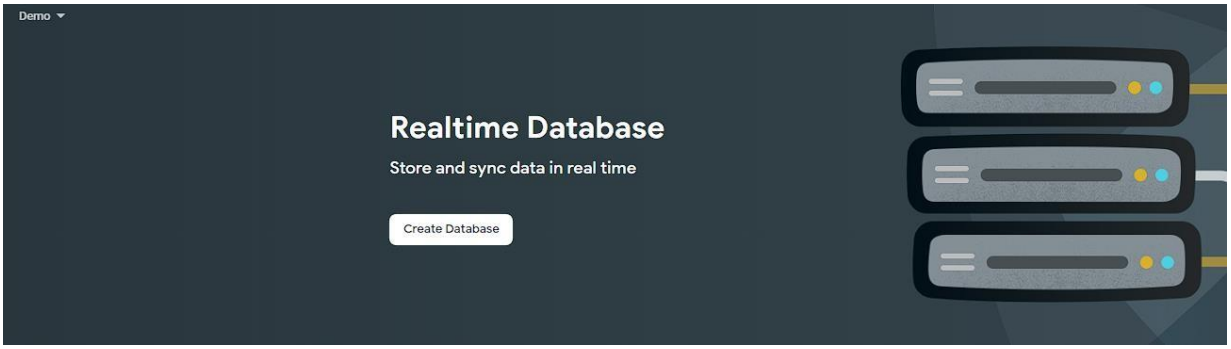
In other steps, the next button is clicked without any action and continue is called.



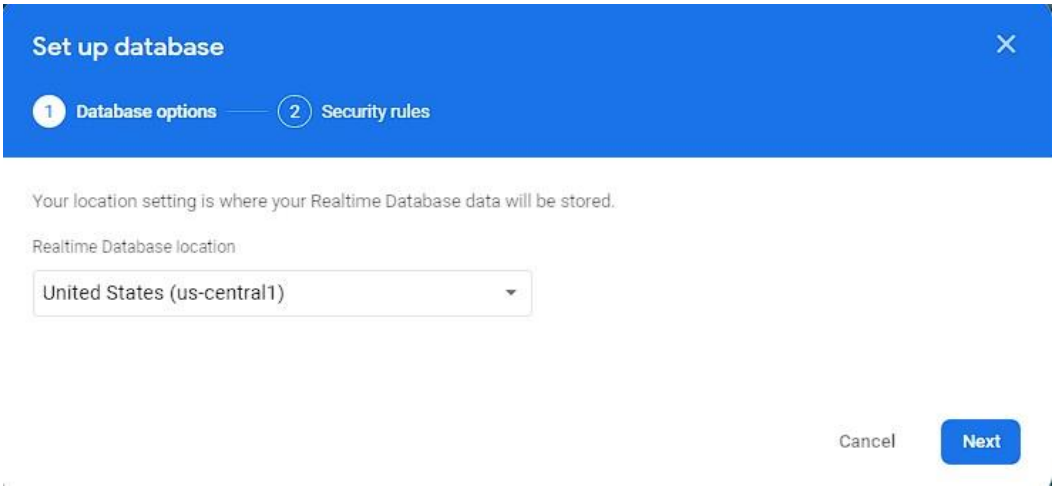
Then Realtime Database is selected from the Build title on the firebase main screen.



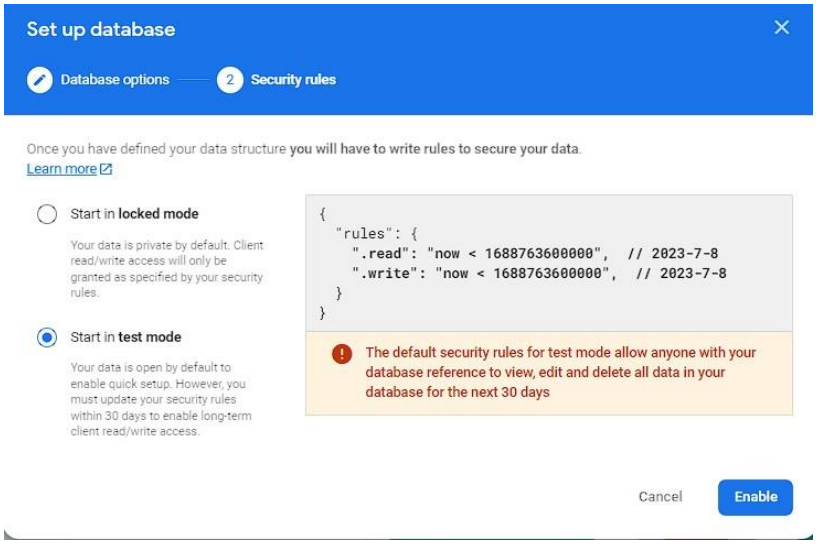
Create button is clicked.



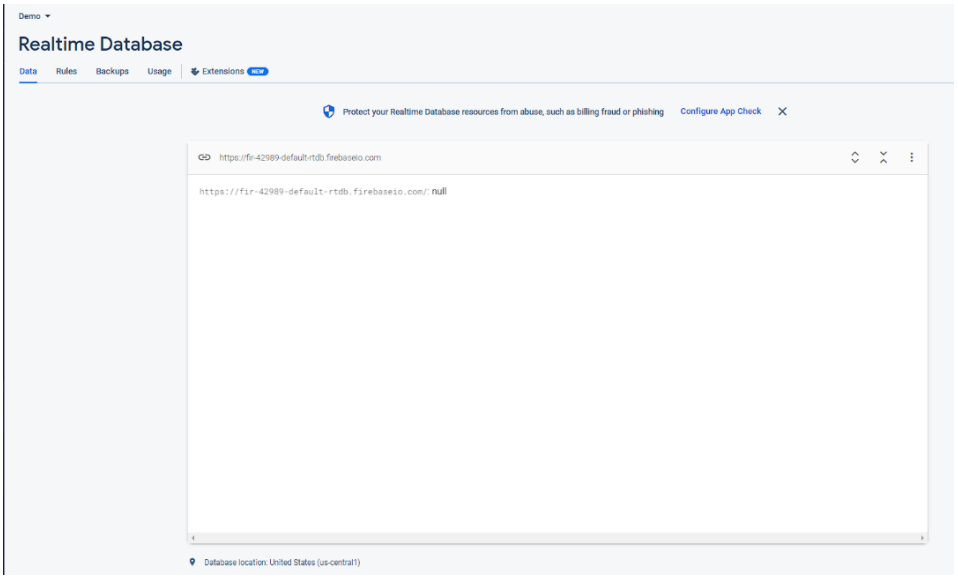
Location is selected as default (United States) and next button is pressed.



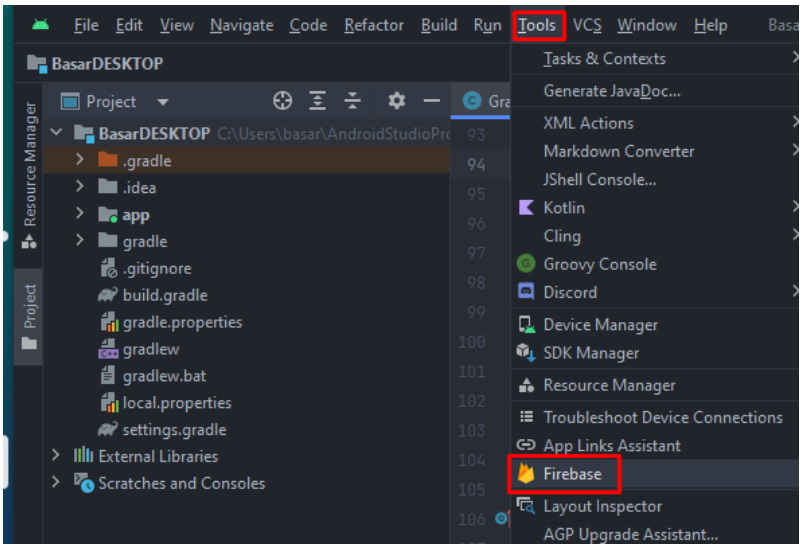
Test mode is selected and enable button is clicked on.

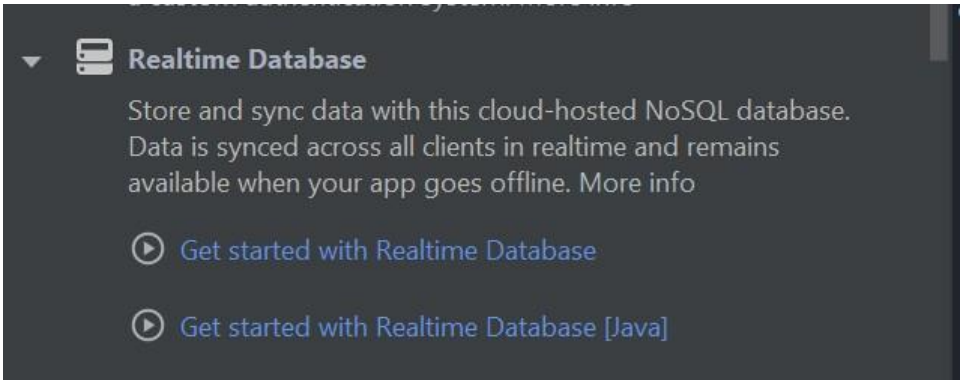


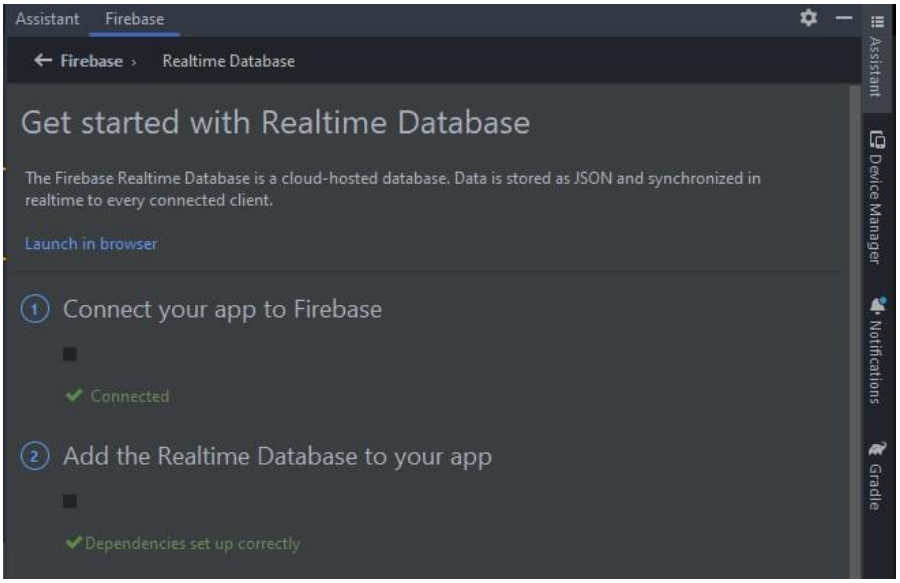
Then the empty database appears on the screen.



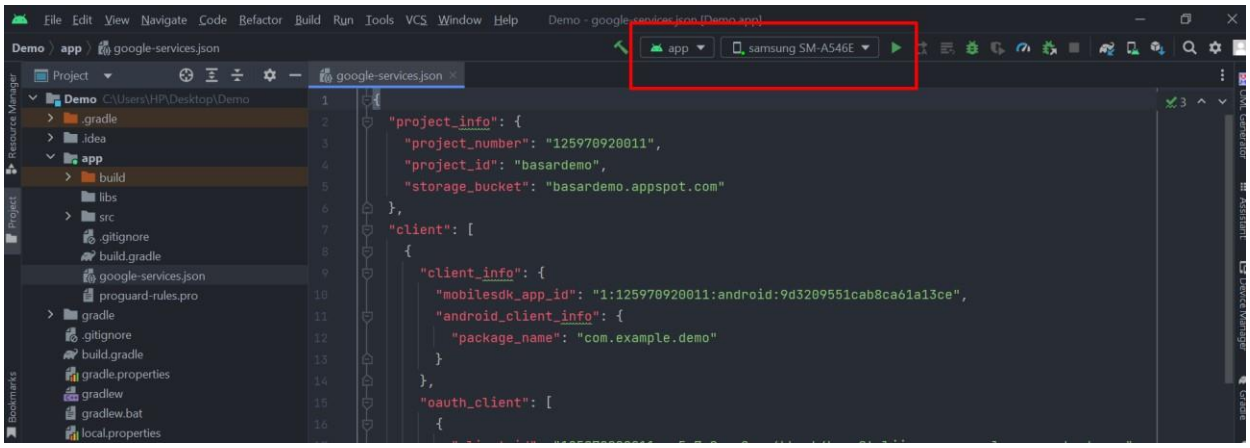
After completing all these steps, Android Studio is closed and started again. Then from the "Tools" menu, Firebase is selected. From the window, the Realtime Database option is controlled by pressing "Get started with Realtime Database". The screen should be as follows:







Then, an Android-based smartphone is connected to the computer via USB or Type-C cable. The connection can be controlled as the below:



If the device is not observed on the screen, USB debugging option should be opened on the phone. The instructions can be found on the following link: https://www.youtube.com/watch?v=f7TP6Qs-els

Now, the system is ready to build Android application. Run button is clicked on the Android Studio. This process also could take a little bit of time, as dependencies, Gradle scripts, and configuration files are handled. After the process is completed, the home screen UI is presented to the user as below. After scanning the desired market receipt, the data in the Realtime Database can also be observed.