

# Technical Documentation for “Tutorial App with Quiz | Native Android Offline Learning App with AdMob & Firebase PUSH Notification”

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*Thank you for purchasing our item. If you have any questions that are beyond the scope of this help file, please feel free to [Email US](#).*

## ***Table of Contents***

1. Project Structure
2. Packages and Java Files
3. XML Files
4. Customization

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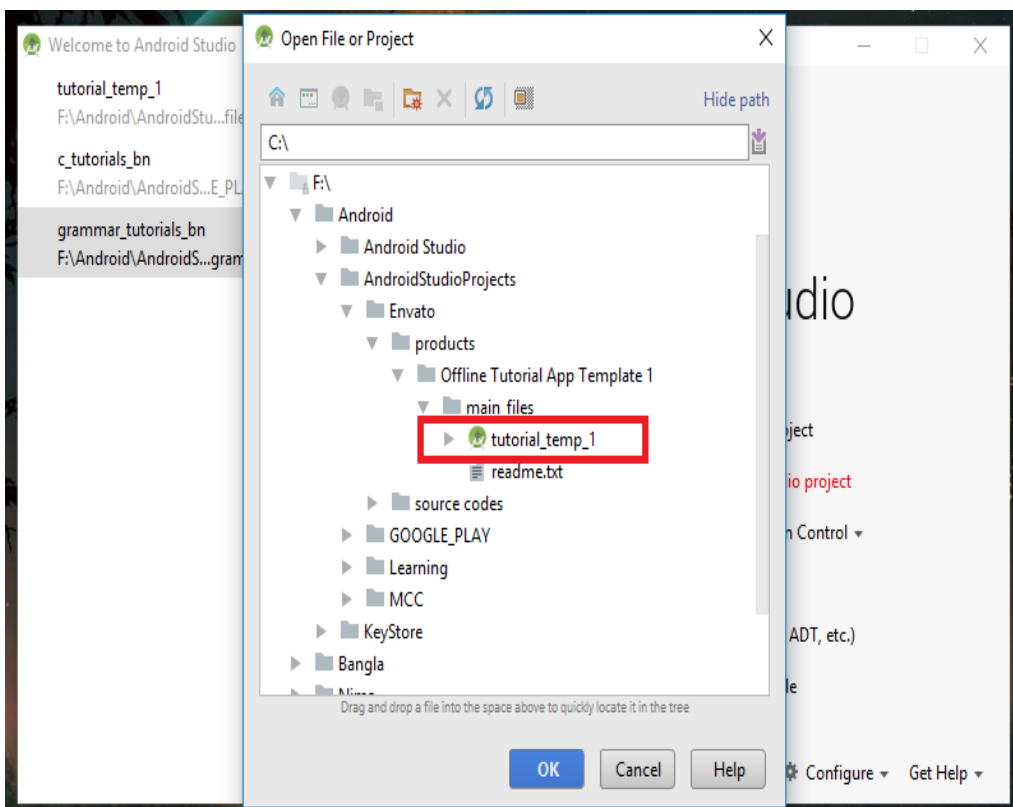
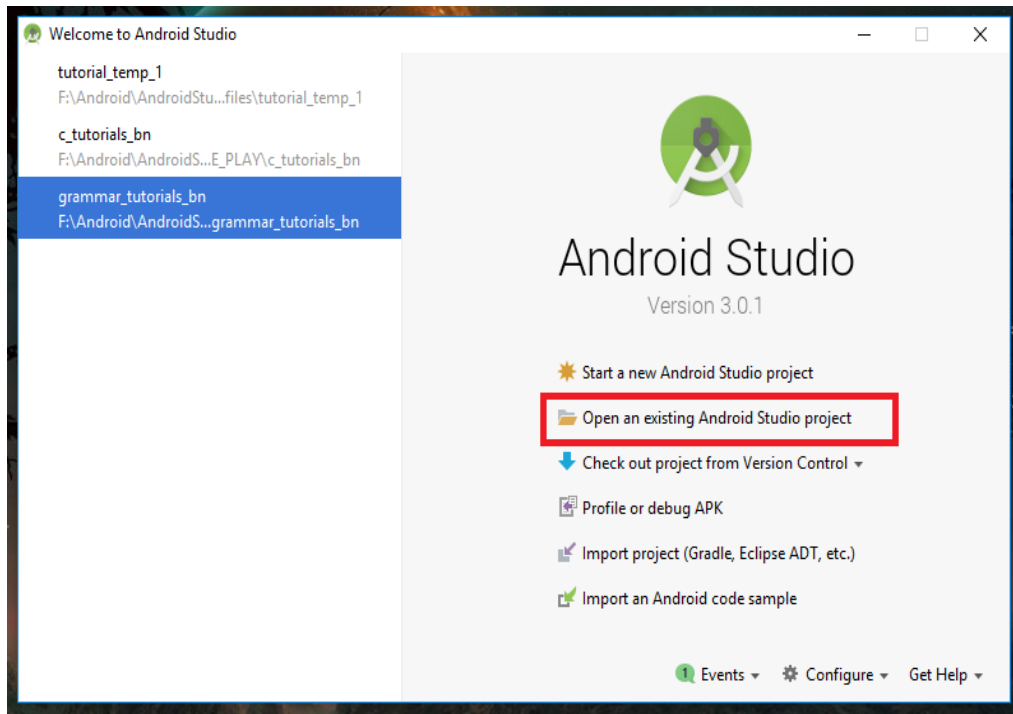
## **1. Project Structure**

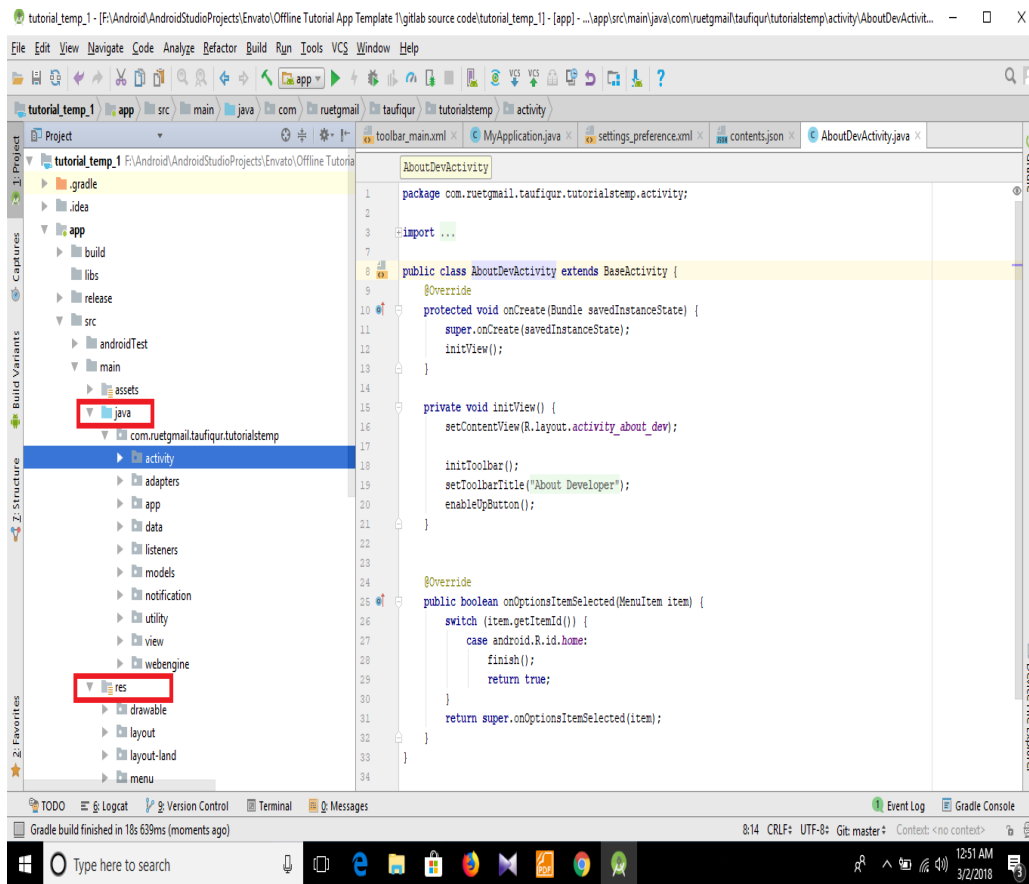
**a. Video Tutorial:** [https://youtu.be/WKH2A7KTpLw?list=PL\\_4v6TqUdcY6ZJQJlzx7YKZVzHAWVmywB](https://youtu.be/WKH2A7KTpLw?list=PL_4v6TqUdcY6ZJQJlzx7YKZVzHAWVmywB)

We made the project as simple as possible for better understanding. It contains few JAVA and XML file to customize. If you are new in Android Studio follow the instruction below to open project:

**b. Guideline:**

- i. Download the project
- ii. Follow the steps in the screenshots below-





Here is the basic view of **Project Navigator**. Double click on any class will open source code in a new tab.

## 2. Packages and Java Files:

There are 10 different packages in that project and every package contains multiple files in an organized way.

Following are the major packages and classes....

### Packages and classes:

- **Activity:** Contains all activities
  - AboutDevActivity
  - BaseActivity
  - CustomUrlActivity
  - DetailsActivity
  - DetailsListActivity
  - FavoriteListActivity
  - ItemListActivity
  - MainActivity

- NotificationDetailsActivity
  - NotificationListActivity
  - QuizActivity
  - QuizPromptActivity
  - ScoreCardActivity
  - SearchActivity
  - SettingsActivity
  - SplashActivity
- **Adapter:** Recycler View and View pager adapters are tighten up into this package.
    - ContentAdapter
    - DetailsPagerAdapter
    - DetailsAdapter
    - FavoriteAdapter
    - ItemAdapter
    - NotificationAdapter
    - QuizAdapter
    - ResultAdapter
- **App:** App level constants are declared here.
    - MyApplication
- **Data:** This package contain 3 different sub package for different type of data management. Constants, Sharedpreferences and SQLite database has been organized under this package.
    - **constant**
      - AppConstant
    - **preference**
      - AppPreference
      - PrefKey
    - **sqlite**
      - DBConstants
      - DBHelper
      - FavoriteDbController
      - NotificationDbController
- **Listeners:** All Recyclerview item and another listener are included here.
    - ListItemClickListener
    - WebListener

- **Models:** All the data model for content, question and notifications are tighten up into this package.
  - content
    - Contents
    - Item
  - Favorite
    - FavoriteModel
  - notification
    - NotificationModel
  - quiz
    - QuizModel
    - ResultModel
- **Notification:** Contains notification helper classes
  - MyFirebaseMessagingService
- **Utility:** Contains miscellaneous utilities.
  - ActivityUtilities
  - AdsUtilities
  - AnalyticsUtilities
  - AppUtilities
  - BeatBox
  - DateUtilities
  - DialogUtilities
  - FilePickerUtilities
  - PermissionUtilities
  - SoundUtilities
- **View:** Contains view related classes.
  - PhenomenaTextView
- **WebEngine:** Contains configuration classes for the webview.
  - VideoView
  - WebEngine

### 3. XML Files

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Here is the major xmls files with usage

- **layout:** Contains activity, toolbar, list item and other layouts.

- activity\_about\_dev.xml
- activity\_custom\_url.xml
- activity\_details.xml
- activity\_details\_list.xml
- activity\_favorite\_list.xml
- activity\_item\_list.xml
- activity\_main.xml
- activity\_notification.xml
- activity\_notification\_details.xml
- activity\_quiz.xml
- activity\_quiz\_prompt.xml
- activity\_score\_card.xml
- activity\_settings.xml
- activity\_splash.xml
- content\_banner\_ad.xml
- content\_main.xml
- content\_notification.xml
- content\_notification\_details.xml
- item\_details\_recycler.xml
- item\_favorite\_recycler.xml
- item\_home\_recycler.xml
- item\_item\_recycler.xml
- item\_notification.xml
- item\_quiz.xml
- item\_result.xml
- item\_view\_pager.xml
- layout\_video\_view.xml
- nav\_header\_main.xml
- toolbar.xml
- toolbar\_details.xml
- toolbar\_main.xml
- view\_common\_loader.xml

- **layout-land:** Contains all landscape layouts -

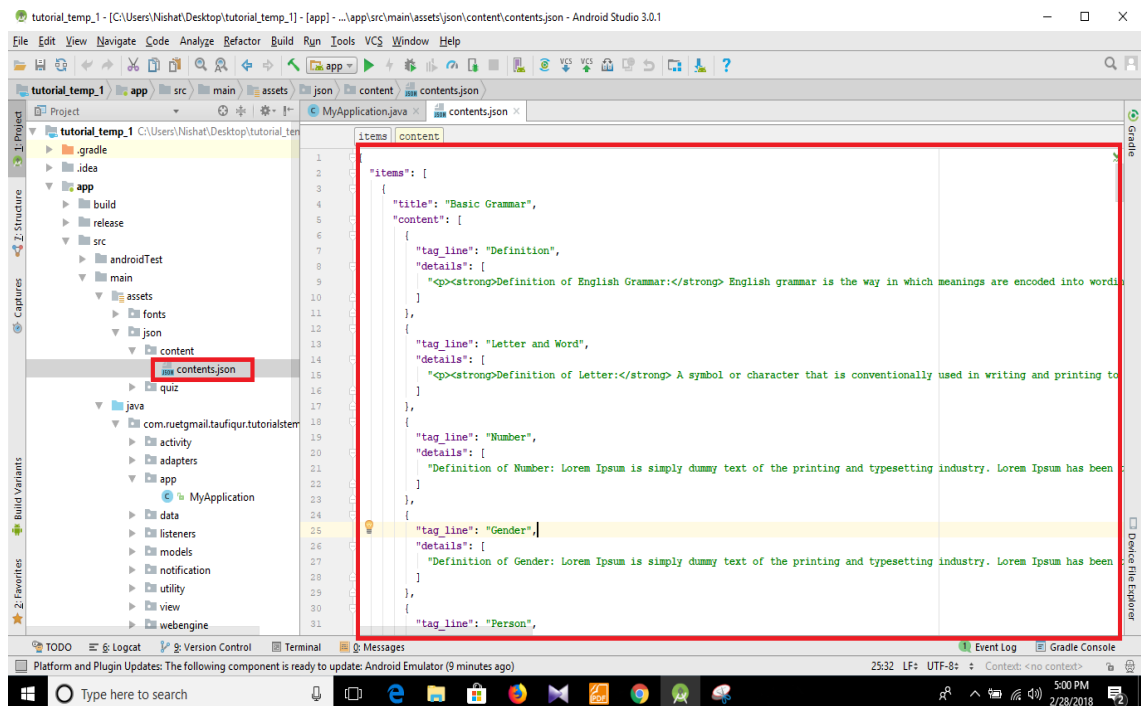
- activity\_quiz\_prompt.xml

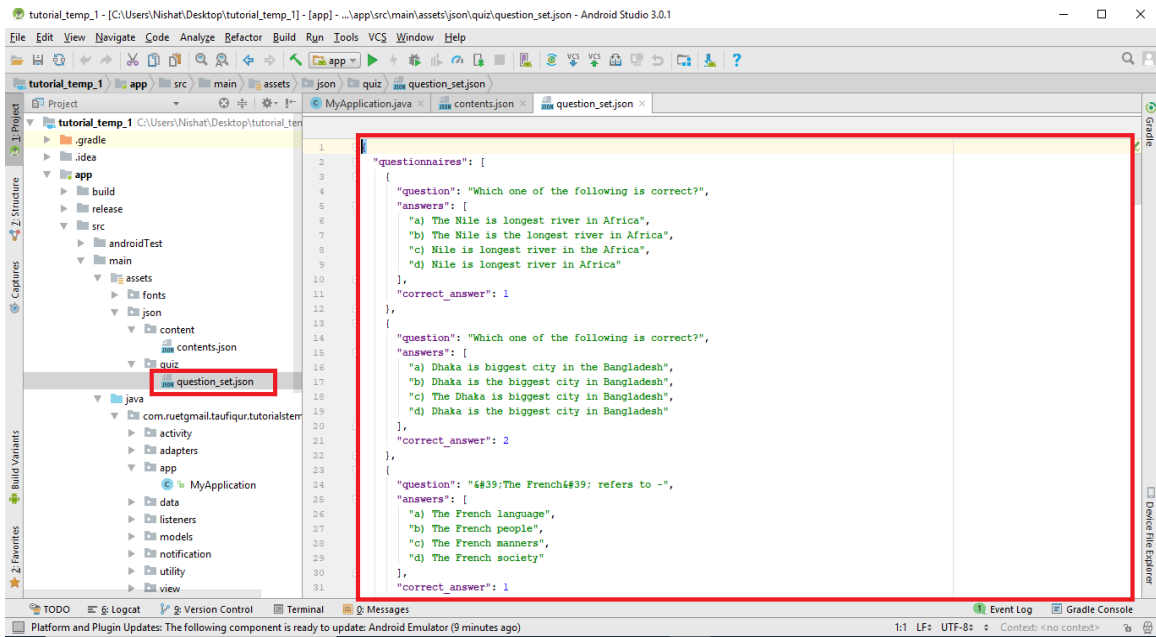
- **menu:** Contains drawer and search menus
  - [menu\\_delete\\_all.xml](#)
  - [menu\\_drawer.xml](#)
  - [menu\\_search.xml](#)
- **xml:** Contains setting and searchable xml
  - [searchable.xml](#)
  - [settings\\_preference.xml](#)

## 4. Customization

### 4.1 Change contents and quiz:

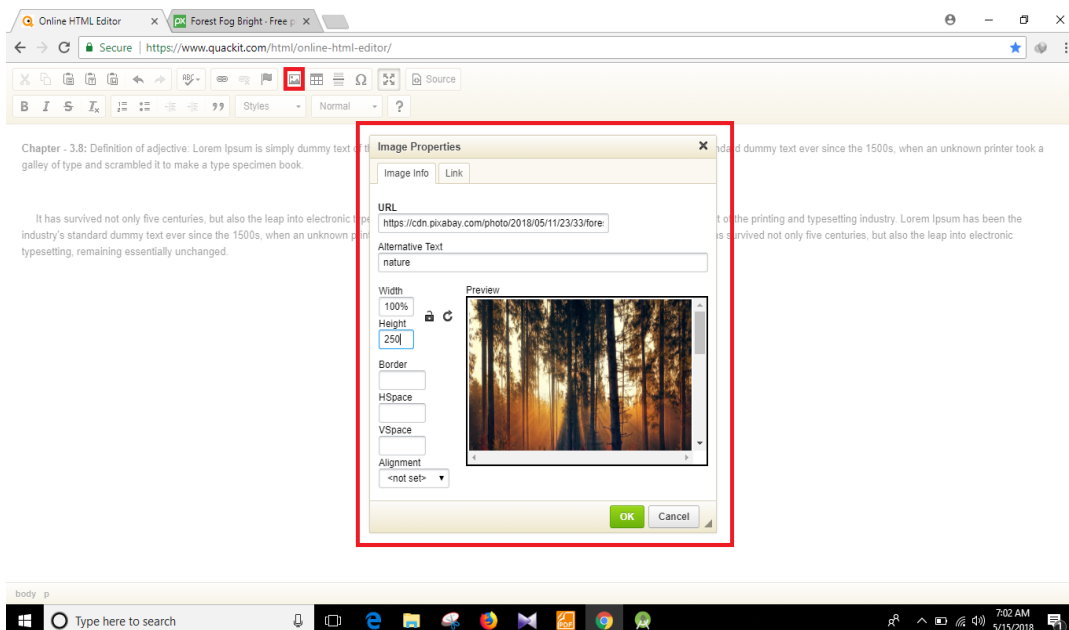
- Video Tutorial:** [https://youtu.be/kgauRKB0R9c?list=PL\\_4v6TqUdcY6ZJQJlzx7YKZVzHAWVmywB](https://youtu.be/kgauRKB0R9c?list=PL_4v6TqUdcY6ZJQJlzx7YKZVzHAWVmywB)
- Guideline:**
  - To change contents and quiz open '*contents.json*' and '*question\_set.json*' files as shown in the screenshots. Our app supports html formatted texts. To make formatted texts, you can go to this site:  
<https://www.quackit.com/html/online-html-editor/>





### Precaution:

1. Go to the link of the online html editor we provide and insert image as shown in the below screenshot
1. After inserting data with image, you will see red warnings/error message in the contents.json file.
2. To remove these warnings, insert a backslash (\) before every quotation mark (") in the image insertion code.
3. An implementation of image insertion can be found in the 'contents.json' file of the source code of our demo app.
4. For Youtube video, copy the video embedded code and paste it in the editor's source file.





For image insertion in the post details page, check out this video - <https://youtu.be/n9z81wZwRko>

We don't want to make the size of our app too large. That's why we fetch images from online and used image cache for offline reading. If you have a website, then you can upload your images there and get the direct image url. If you don't have website or you don't want to upload images in your web server, then you can upload these images in google drive and get the image url as we used in the source code.

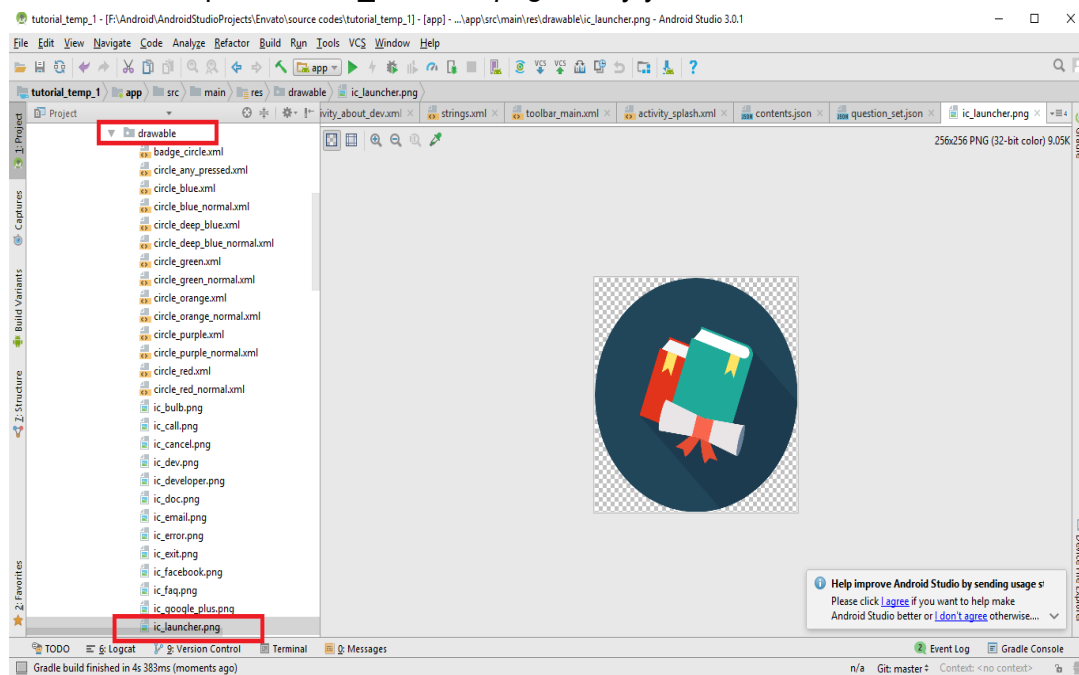
To get image url from google drive, check out this video: <https://youtu.be/Y1joksnUW04>

## 4.2. Change app icon:

a. **Video Tutorial:** [https://youtu.be/xBtTZYOOfLg?list=PL\\_4v6TqUdcY6ZJQJlzx7YKZVzHAWVmywB](https://youtu.be/xBtTZYOOfLg?list=PL_4v6TqUdcY6ZJQJlzx7YKZVzHAWVmywB)

b. **Guidelines:**

- i. To change any icons go to the drawable folder. For example - To change app icon replace the '*ic\_launcher.png*' file by yours as shown in the screenshot-



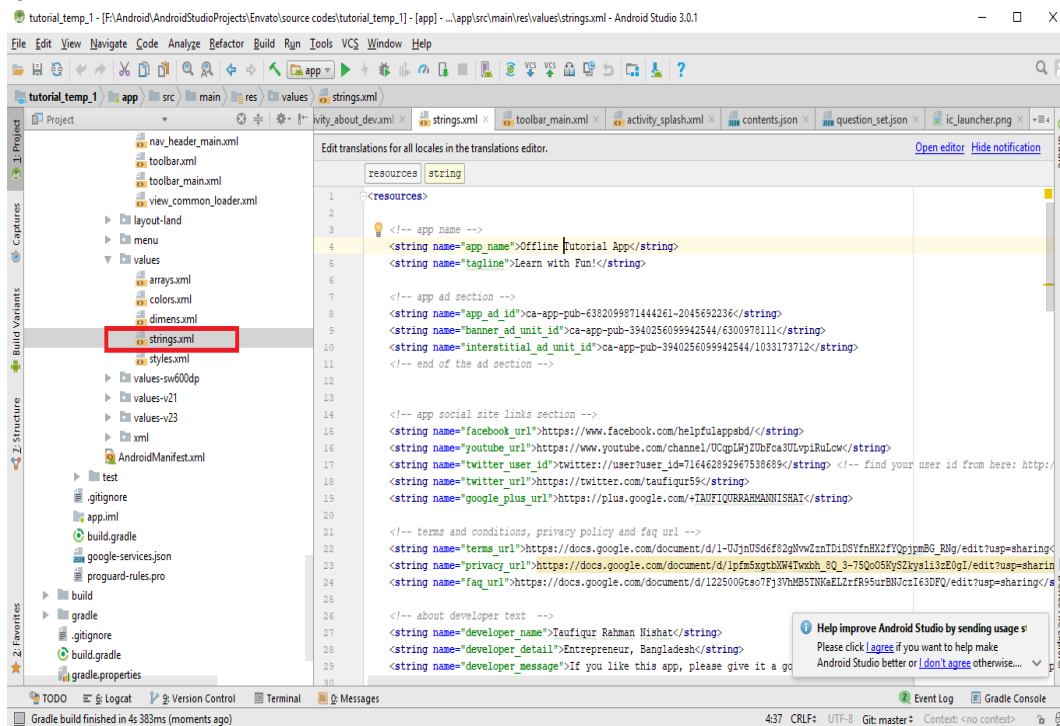
- ii. To change developer picture, find '*ic\_dev.png*'

### 4.3 Change the followings -

- App name
- Ads units
- Social site links
- Terms and Conditions urls
- About developer texts
- Developer Google Play Id

**Video Tutorial:** [https://youtu.be/Dqq3TXkw5Nw?list=PL\\_4v6TqUdcY6ZJQJlzx7YKZVzHAWVmywB](https://youtu.be/Dqq3TXkw5Nw?list=PL_4v6TqUdcY6ZJQJlzx7YKZVzHAWVmywB)

**Guidelines:** To change the items mentioned above, go to the 'strings.xml' file as shown in the following screenshot and follow the instructions in it -



### 4.4 Change package name:

- Video Tutorial:** [https://youtu.be/gaSifqCP2HA?list=PL\\_4v6TqUdcY6ZJQJlzx7YKZVzHAWVmywB](https://youtu.be/gaSifqCP2HA?list=PL_4v6TqUdcY6ZJQJlzx7YKZVzHAWVmywB)
- Guidelines:**
  - To change package name: <https://stackoverflow.com/a/29092698>
  - Open `google-services.json` from `/app` directory Find `package_name` variables and replace those value by your package name

**P.S:** To remove the middle part, watch this video: [https://youtu.be/lcKtkd7\\_Fvg](https://youtu.be/lcKtkd7_Fvg)

#### 4.5 Configure push notification:

a. **Video Tutorial:** [https://youtu.be/lnA2XFPk874?list=PL\\_4v6TqUdcY6ZJQJlzx7YKZVzHAWVmywB](https://youtu.be/lnA2XFPk874?list=PL_4v6TqUdcY6ZJQJlzx7YKZVzHAWVmywB)

b. **Guidelines:**

i. **Create project in Firebase:**

1. Open <https://console.firebase.google.com> in browser, login via your gmail account
2. Click on **Add Project** option, provide project name and region and create project
3. Click on **Add Firebase to You Android App**, Provide **Package Name, App Name** and release **SHA1** of your release keystore.
4. Click on **Register App** and **Download Google-Service.json** and **Continue** and **Finish**

a. **App modification**

- i. Paste google-service.json to `/app` directory (replace previous one)
- ii. Customize **Project-level build.gradle** (<project>/build.gradle):

```
buildscript {  
    dependencies {  
        // Add this line  
        classpath 'com.google.gms:google-services:3.1.0'  
    }  
}
```

- iii. Customize **App-level build.gradle** (<project>/<app-module>/build.gradle):

```
...  
// Add to the bottom of the file  
apply plugin: 'com.google.gms.google-services'
```

- iv. Finally, press "**Sync now**" in the bar that appears in the IDE:
- v. Run project and send push from hosted web console

b. **Send PUSH from console:**

- i. To send PUSH notification from firebase console,
  1. Log in to the console and select your project.
  2. Go to the **Notifications** option.
  3. Create a new notification
  4. You must have to select **Advanced Options** to set custom data
  5. Configure it as shown in the screenshots and send it -

The image displays two screenshots of the Firebase console's 'Compose message' interface. The top screenshot shows the 'Target' section where 'User segment' is selected, and the app ID 'com.ruetmail.taufiqur.tutorialstemp' is entered. The bottom screenshot shows the 'Custom data' section with fields for title, message, url, and key-value pairs, along with priority and expiration settings.

**Top Screenshot: Target Section**

Message text: title

Message label (optional): From PUSH

Delivery date: Send Now

Target: ☒ User segment ☐ Topic ☐ Single device

Target user if...: App  AND

Conversion events: [Dropdown]

Advanced options: All fields optional

**Bottom Screenshot: Custom data Section**

Android Notification Channel: [Text Field]

Custom data:

title	test title
message	test message
url	https://play.google.com/store/apps/details?id=com.ruetgn
Key	Value

Priority: High Sound: Disabled

Expires: 4 Weeks

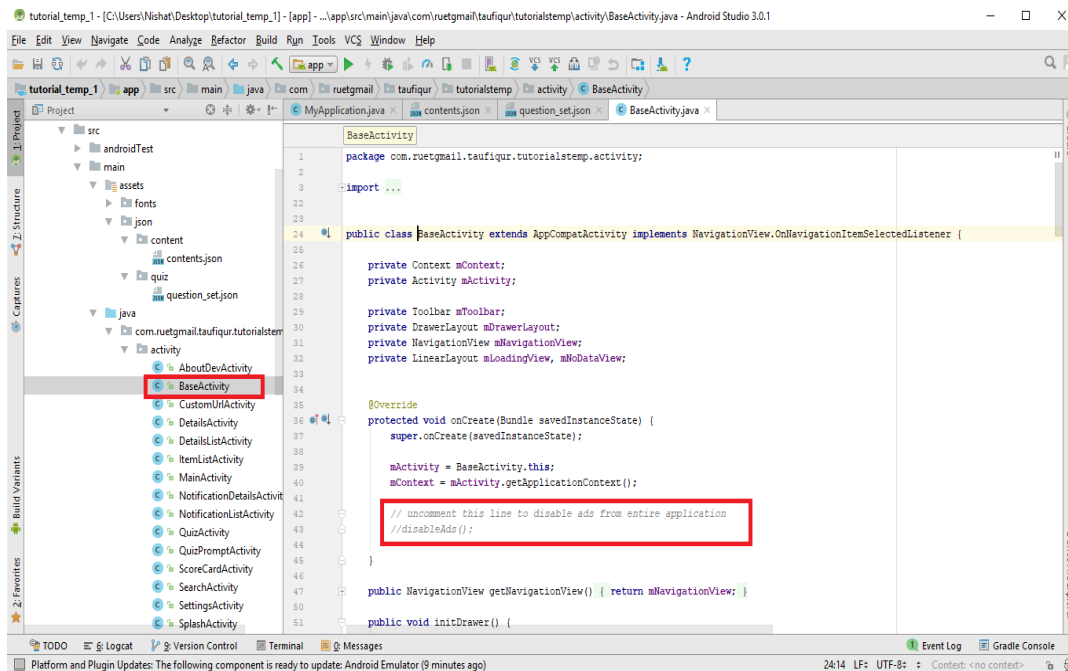
SAVE AS DRAFT SEND MESSAGE

## Send PUSH Notification from Custom Dashboard:

- Video Tutorial:** [https://youtu.be/VHVS29tjwG4?list=PL\\_4v6TqUdcY6ZJQJlzx7YKZVzHAWVmywB](https://youtu.be/VHVS29tjwG4?list=PL_4v6TqUdcY6ZJQJlzx7YKZVzHAWVmywB)

#### 4.6 Remove Ads from the entire Application:

- Video Tutorial:** [https://youtu.be/Silwch-Vhlg?list=PL\\_4v6TqUdcY6ZJQJlzx7YKZVzHAWVmywB](https://youtu.be/Silwch-Vhlg?list=PL_4v6TqUdcY6ZJQJlzx7YKZVzHAWVmywB)
- Guidelines:** To remove AdMob Ads, open 'BaseActivity.java' file and follow the procedure indicated in the file as shown in the following screenshot-

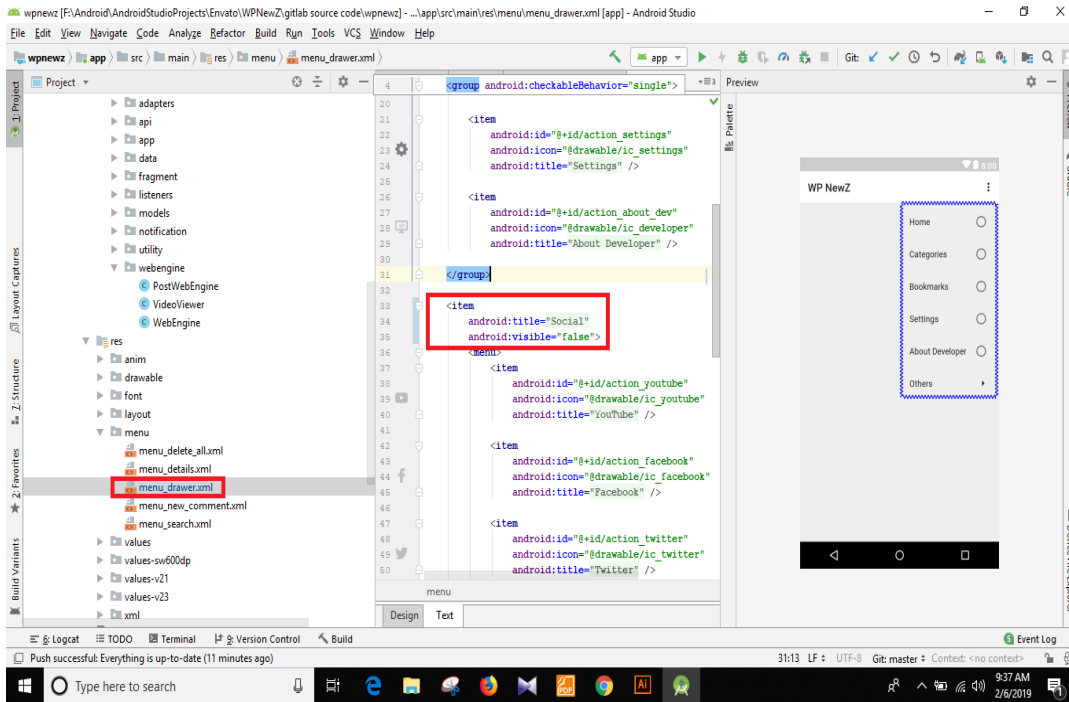


#### 4.7 Remove Navigation Drawer Menu Items:

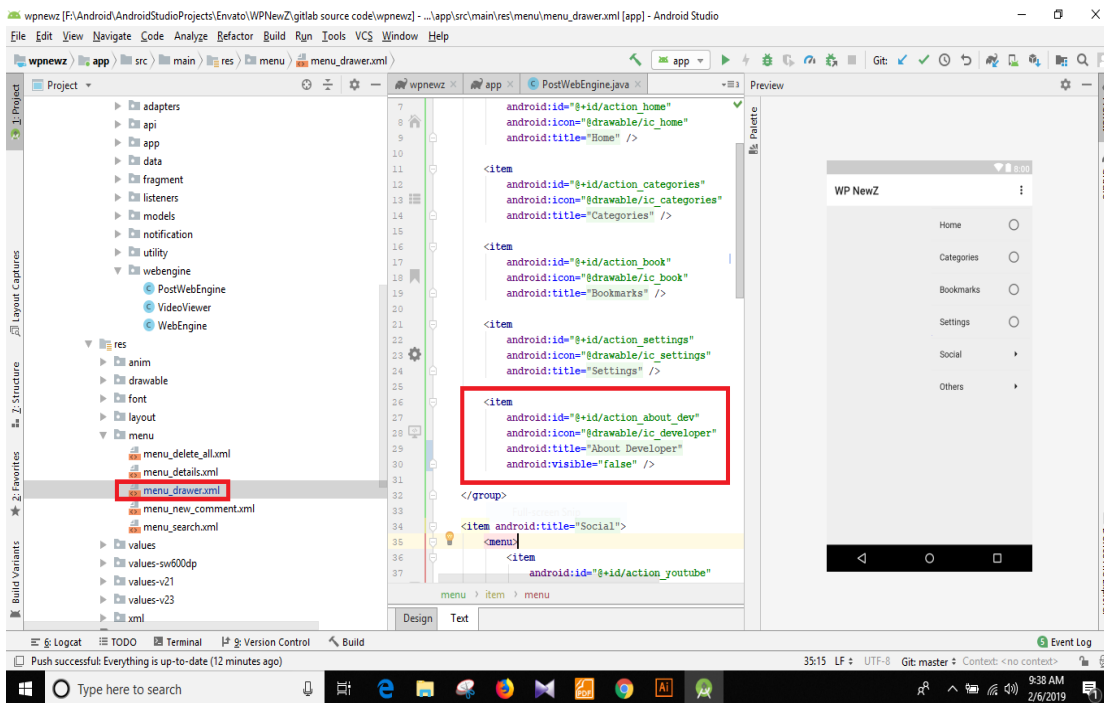
- Guidelines:** To remove menu items, open a menu file and insert the following code into the corresponding item -  
`android:visible="false"`

For example -

- To remove entire 'Social' menu -

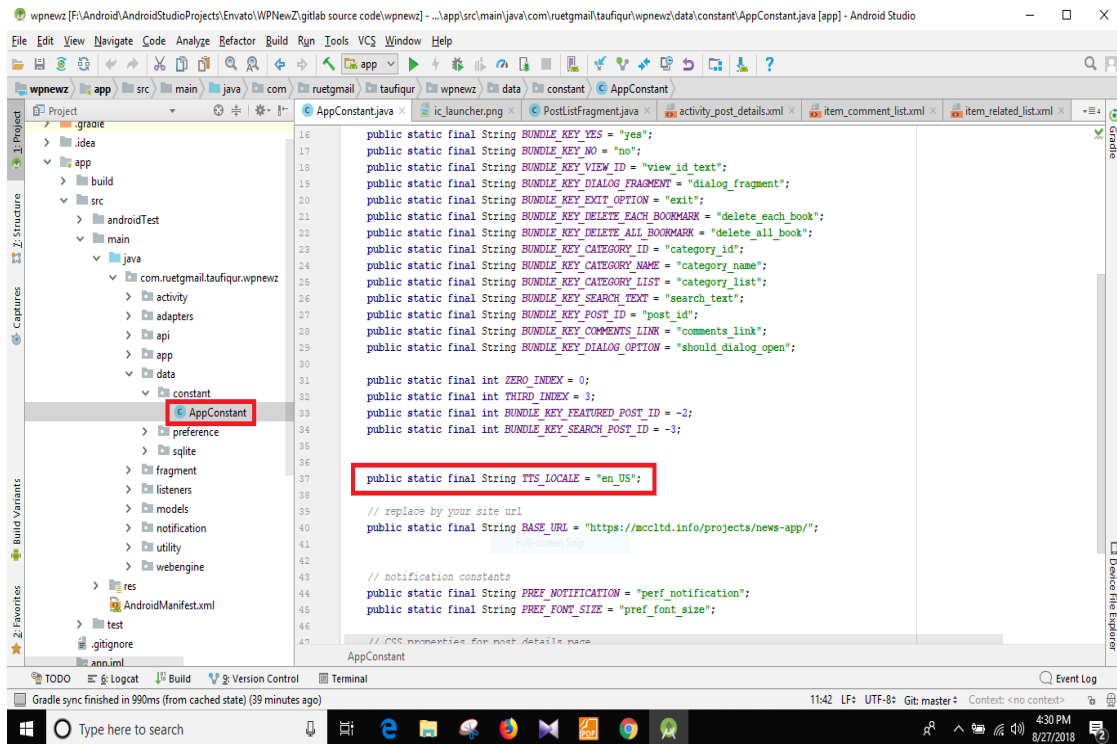


## 2. To remove a single menu item -



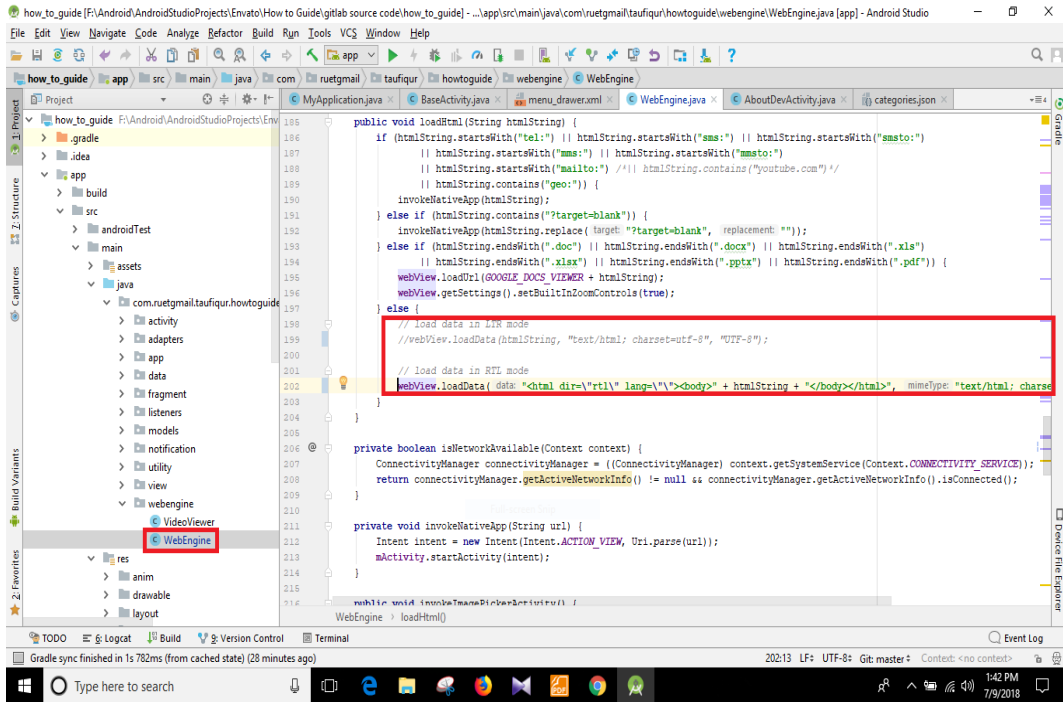
## 4.8 Change Text to Speech Language:

**Guidelines:** To change the language of the voice engine, open '*AppConstant.java*' file and replace the language code by yours as shown in the screenshot. To get the language code, go to this site: <https://cloud.google.com/speech-to-text/docs/languages>



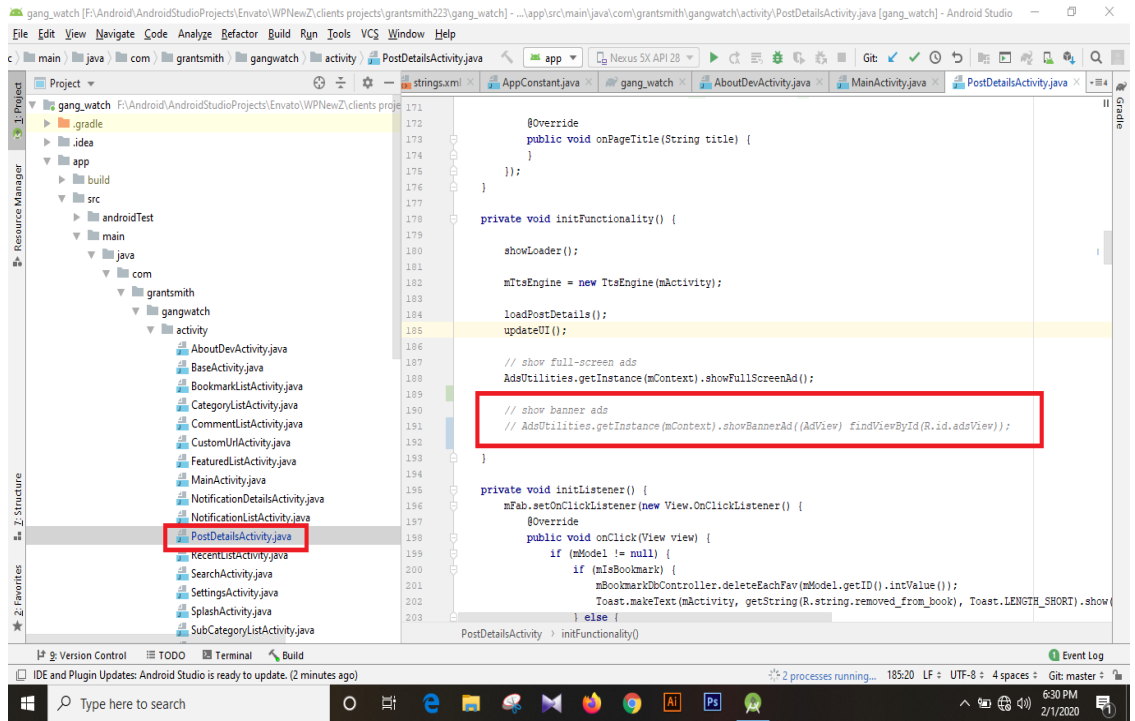
## 4.9 Making the App fully RTL Arabic supported:

- Guidelines:** We already made the necessary changes for rtl arabic support. However, if you want to make your app fully and only in rtl arabic language, you also need to make a few changes. Just open the '*WebEngine.java*' and uncomment the code for loading data in rtl mode as shown in the below screenshot -



To remove the banner ads from the post details page, remove or commented on the marked section in the DetialsActivity.java file as shown in the below screenshot-





This documentation was prepared by - **Loser LEO**

If you have any questions that are beyond the scope of this help file, please feel free to [Email US](#).