

## Problem definition:

Create an APP for capture image from the camera and store it in database by using Android studio.

1. Using Camera by Using Camera Application
2. Using Camera By using Camera API
3. Camera Permission Declarations in Manifest
4. Camera Example in Android Studio by Using Camera Intent and storing the camera Image in Local Database

### 1.Using Camera by Using Camera Application :

Capture pictures without using the instance of Camera class. Here you will use an intent action type of MediaStore. ACTION\_IMAGE\_CAPTURE to launch an existing Camera application on your phone. In Android MediaStore is a type of Database which stores pictures in android.

### 2. Using Camera By using Camera API:

API class is used for controlling device cameras. It can be used to take pictures when you are building a camera application.

Camera API should work in following ways:

- 1.Camera Manager: This is used to get all the cameras available in the device like front camera back camera each having the camera id.
- 2.CameraDevice: You can get it from Camera Manager class by its id.
- 3.CaptureRequest: You can create a capture request from camera device to capture images.
- 4.CameraCaptureSession: To get capture requests from Camera Device create a CameraCaptureSession.
- 5.CameraCaptureSession.CaptureCallback: This is going to provide the Capture session results.

### 3.Camera Permission Declarations in Manifest :

you should declare the Camera requirement in your Manifest file if Camera is compulsory for your application and you don't want your application to be installed on a device that does not support Camera.

Before you start development on your application you have to make sure that your Manifest has appropriate declarations in it that will allow you to use Camera feature in your Application.

```
<uses-permission android:name="android.permission.CAMERA"/>
```

### 4.Camera Example in Android Studio by Using Camera Intent and storing the camera Image in Local Database

**Step 1:** Create a new project in Android Studio

**Step 2:** Open res -> layout -> xml or (activity\_main.xml) used frame layout to load the fragments.

**Step 3:** Open src -> package -> MainActivity.java  
loading your default fragment into frame layout in MainActivity:

**Step 4:** Open res -> layout -> xml or (camera\_fragment.xml)  
you click an image and save it to Database and used to view that stored image.

**Step 5: checking the camera fragment of the following**

i)Checking Camera Permissions ii) startActivityForResult(cameraIntent, CAMERA\_REQUEST) Method  
iii) etEncodedString(Bitmap bitmap) Method iv)setDataToDataBase() Method

**Step 6 :**Open src -> package -> CameraFragment.java

open CameraFragment and add the code to initiate the camera, perform a set of operation to click a picture from camera and store that in database.

**Step 7:** Open src -> package -> DataBaseHandler Class.java

define Schema i.e. DataBase name, version, table names, and column names. As this class extends SQLiteOpenHelper it says to implement two methods

1.onCreate() -this method is called by the framework, if the database has not been created yet but only accessed.

2.onUpgrade() – This method is called if you want to add something in database then you have to upgrade your database version. This method helps to update the current database schema or to drop the table or recreate it in via on Create method.

Method public void deleteEntry(long row)-This Method is used to delete an entry in DataBase based on uid.

**Step 8:**Open res -> layout -> xml or (local\_fragment.xml)

In this fragment, I have used Recycler view to show the data stored In the DataBase.

**Step 9:**Open src -> package -> LocalFragment.java

getting the data out of the database using cursor. The cursor is an interface that contains the result set of Query made against DataBase in android. When you retrieve some data then the database will first create the Cursor object the pointer of this object id is pointing to 0th position. So with the help of Cursor, you are getting data out of database Since the cursor object points to the 0th index you will check it for till cursor is moving to next cursor.moveToNext() to get the next data out of DataBase after 0th position.

**Step 10:** Open res -> layout -> xml or (Local\_database\_items.xml)

The Local DataBase RecyclerView Items is going to look and used a CardView to show an image and you have also Used one more ImageView on click of which your image will be deleted from DataBase.