MainActivity.java

```
package com.example.map_project;

import androidx.annotation.Nullable;
import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;

import android.content.Context;
import android.content.DialogInterface;
import android.content.Intent;
import android.content.SharedPreferences;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.Toast;

import com.google.android.material.floatingactionbutton.FloatingActionButton;

import java.util.Map;
import java.util.Set;

public class MainActivity extends AppCompatActivity {
    FloatingActionButton fab1,fab2,fab3;
    Intent camact;
    Intent dbact;
    public static boolean budSet=false;
    View vdialog;
    public static int bud;
    AlertDialog.Builder ab;
    SharedPreferences sf;
    SharedPreferences.Editor et;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        getSupportActionBar().hide();
        sf  = getSharedPreferences("MyPref", Context.MODE_PRIVATE);
        et = sf.edit();
        bud=sf.getInt("bud",0);
        budSet=sf.getBoolean("budset",false);
        fab1=findViewById(R.id.budget);
```

```
fab2=findViewById(R.id.cam);
fab3=findViewById(R.id.data);
fab2.setOnClickListener(new View.OnClickListener() {
   @Override
   public void onClick(View v) {
      camact=new Intent(getApplicationContext(),CAM.class);
      startActivity(camact);
   }
});
fab3.setOnClickListener(new View.OnClickListener() {
   @Override
   public void onClick(View v) {
      dbact=new Intent(getApplicationContext(),DBACT.class);
      startActivity(dbact);
   }
});
fab1.setOnClickListener(new View.OnClickListener() {
   @Override
   public void onClick(View v) {

      if(!budSet){
         vdialog= getLayoutInflater().inflate(R.layout.buddialog,null);
         ab =new AlertDialog.Builder(MainActivity.this);
         ab.setTitle("Set Budget");
         ab.setView(vdialog);
         ab.setPositiveButton("OK", new DialogInterface.OnClickListener() {
            @Override
            public void onClick(DialogInterface dialog, int which) {
               EditText edtbud=vdialog.findViewById(R.id.budtext);
               bud=Integer.parseInt(edtbud.getText().toString());
               budSet=true;
               et.putInt("bud",bud);
               et.putBoolean("budset",budSet);
               et.commit();

            }
         });
         AlertDialog ob=ab.create();
         ob.show();

      }
      else{

         final AlertDialog.Builder ab1 =new AlertDialog.Builder(MainActivity.this);
```

```
            ab1.setTitle("Budget");
            ab1.setMessage(""+bud);
            ab1.setPositiveButton("OK", new DialogInterface.OnClickListener() {
              @Override
              public void onClick(DialogInterface dialog, int which) {

              }
            });
            AlertDialog ob1=ab1.create();
            ob1.show();
          }
        }
      });

  }
}
```

DBACT.java

```
package com.example.map_project;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.os.Bundle;
import android.view.View;
import android.view.ViewGroup;
import android.widget.BaseAdapter;
import android.widget.CursorAdapter;
import android.widget.ImageView;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

public class DBACT extends AppCompatActivity {
  ListView listView;
  SQLiteDatabase db;
  Cursor c;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
```

```
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_dbact);
        ListView lts= findViewById(R.id.list);
        db=openOrCreateDatabase("DetailsDB", Context.MODE_PRIVATE, null);

        db.execSQL("CREATE TABLE IF NOT EXISTS Details(name VARCHAR,price VARCHAR,_id
VARCHAR);");
        c=db.rawQuery("SELECT * FROM Details", null);
        if(c!=null){
            Toast.makeText(this,"Null C"+c.getCount(),Toast.LENGTH_LONG).show();
        }

        myAdapter mc = new myAdapter();
        Toast.makeText(this,"MCA",Toast.LENGTH_LONG).show();
        lts.setAdapter(mc);

    }
    class myAdapter extends BaseAdapter{

        @Override
        public int getCount() {
            return c.getCount();
        }

        @Override
        public Object getItem(int position) {
            return null;
        }

        @Override
        public long getItemId(int position) {
            return 0;
        }

        @Override
        public View getView(int position, View convertView, ViewGroup parent) {
            convertView=getLayoutInflater().inflate(R.layout.custom,null);
            TextView textViewn=(TextView)convertView.findViewById(R.id.name);
            TextView textViewp=(TextView)convertView.findViewById(R.id.price);
            TextView textViewd=convertView.findViewById(R.id.date);
            c.moveToPosition(position);
            textViewn.setText(""+c.getString(0));
            textViewp.setText(""+c.getString(1));
            textViewd.setText(""+c.getString(2));
```

```
            return convertView;
        }
    }
    class MCA extends CursorAdapter{
        public MCA(Context c,Cursor s){
            super(c,s,0);
        }

        @Override
        public View newView(Context context, Cursor cursor, ViewGroup parent) {
            return getLayoutInflater().from(context).inflate(R.layout.custom, parent, false);
        }

        @Override
        public void bindView(View view, Context context, Cursor cursor) {
            TextView textViewn=view.findViewById(R.id.name);
            TextView textViewp=view.findViewById(R.id.price);
            TextView textViewd=view.findViewById(R.id.date);
            String name = cursor.getString(0);
            String date = cursor.getString(1);
            String price=cursor.getString(2);
            textViewn.setText(name);
            textViewp.setText(price);
            textViewd.setText(date);

        }
    }
}
```

CorrectImgData.java

```
package com.example.map_project;

import androidx.annotation.Nullable;
import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;

import android.content.Context;
import android.content.DialogInterface;
```

```
import android.content.Intent;
import android.content.SharedPreferences;
import android.database.sqlite.SQLiteDatabase;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.Toast;

import com.google.android.material.floatingactionbutton.FloatingActionButton;

import java.text.SimpleDateFormat;
import java.util.Date;
import java.util.Map;
import java.util.Set;

import static com.example.map_project.MainActivity.bud;
import static com.example.map_project.MainActivity.budSet;

public class CorrectImgData extends AppCompatActivity {
    EditText name,price;
    Bundle b;
    public SQLiteDatabase db;
    Intent back;
    String date;
    FloatingActionButton Insert;
    SharedPreferences sf;
    SharedPreferences.Editor et;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_correct_img_data);
        sf = getSharedPreferences("MyPref", Context.MODE_PRIVATE);
        et = sf.edit();
        name= findViewById(R.id.name);
        price= findViewById(R.id.price);
        Insert=findViewById(R.id.insert);
        b= getIntent().getBundleExtra("txt");
        String asd[]=b.getString("data").split("\n");

        name.setText(""+asd[0]);
        String pt;
        String data= b.getString("data");
        pt=getTotal(data,"total");
```

```
        String ts[]=pt.split("\\.");
        int spent=Integer.parseInt(ts[0]);
        if(spent<bud) {
            bud = bud - spent;

            et.putInt("bud",bud);
            et.putBoolean("budset",budSet);
            et.commit();
        }else{
            AlertDialog.Builder builder=new AlertDialog.Builder(CorrectImgData.this);
            builder.setTitle("!!!!!");
            builder.setMessage("OUT OF BUDGET");
            builder.setPositiveButton("OK", new DialogInterface.OnClickListener() {
                @Override
                public void onClick(DialogInterface dialog, int which) {

                }
            });
            AlertDialog ob=builder.create();
            ob.show();
            budSet=false;
            et.putInt("bud",bud);
            et.putBoolean("budset",budSet);
            et.commit();
        }
        price.setText(""+pt);
        SimpleDateFormat sdf = new SimpleDateFormat("yyyy.MM.dd G 'at' HH:mm:ss z");
        date = sdf.format(new Date());
        db=openOrCreateDatabase("DetailsDB", Context.MODE_PRIVATE, null);
        db.execSQL("CREATE TABLE IF NOT EXISTS Details(name VARCHAR,price VARCHAR,date
VARCHAR);");

        Insert.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(android.view.View view) {
                if(name.getText().toString().trim().length()==0||
                        price.getText().toString().trim().length()==0)
                {
                    Toast.makeText(getBaseContext(),"Error Please enter all
values",Toast.LENGTH_SHORT).show();
                    return;
                }
                db.execSQL("INSERT INTO Details VALUES('"+name.getText()+"','"+price.getText()+
                        "','"+date+"');");
```

```
            Toast.makeText(getBaseContext(),"success",Toast.LENGTH_SHORT).show();
            back=new Intent(getApplicationContext(),MainActivity.class);
            startActivity(back);

        }
    });



}

public String getTotal(String data,String toSearch){
    String ans="";
    String temp="";
    temp= data.trim();
    String found="";
    String[] arr=data.split("\n");
    int lt= data.lastIndexOf(toSearch);
    for(int i=0;i<arr.length;i++){
        if(arr[i].equalsIgnoreCase(toSearch)){
            lt=i;
        }
    }
    found= arr[arr.length-1];
    Toast.makeText(getApplicationContext(),"Value of lt--
>"+arr[lt],Toast.LENGTH_LONG).show();
    return found;
}

}
```

CAM.java

```
package com.example.map_project;

import androidx.annotation.NonNull;
import androidx.annotation.Nullable;
import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.graphics.Bitmap;
import android.graphics.BitmapFactory;
import android.os.Bundle;
```

```
import android.provider.MediaStore;
import android.widget.ImageView;
import android.widget.Toast;

import com.camerakit.CameraKitView;
import com.google.android.gms.tasks.OnFailureListener;
import com.google.android.gms.tasks.OnSuccessListener;
import com.google.firebase.ml.vision.FirebaseVision;
import com.google.firebase.ml.vision.common.FirebaseVisionImage;
import com.google.firebase.ml.vision.common.FirebaseVisionImageMetadata;
import com.google.firebase.ml.vision.text.FirebaseVisionCloudTextRecognizerOptions;
import com.google.firebase.ml.vision.text.FirebaseVisionText;
import com.google.firebase.ml.vision.text.FirebaseVisionTextRecognizer;

import java.util.ArrayList;

public class CAM extends AppCompatActivity {
    CameraKitView mainCamera;
    FirebaseVisionImage textImg;
    ImageView imageView;
    FirebaseVisionImageMetadata txtmetadata;
    FirebaseVisionTextRecognizer textRecogniser;
    FirebaseVisionImageMetadata.Builder txb = new FirebaseVisionImageMetadata.Builder();
    FirebaseVisionCloudTextRecognizerOptions txrOptions;
    ArrayList<String> languages= new ArrayList<>();

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_cam);
        txb.setFormat(FirebaseVisionImageMetadata.IMAGE_FORMAT_NV21);
        txb.setHeight(500);
        txb.setWidth(500);
        txb.setRotation(0);
        imageView=findViewById(R.id.imgv);
        txtmetadata = txb.build();
        languages.add("en");
        languages.add("hi");
        textRecogniser = FirebaseVision.getInstance().getCloudTextRecognizer();
        Intent takePictureIntent = new Intent(MediaStore.ACTION_IMAGE_CAPTURE);
        if (takePictureIntent.resolveActivity(getPackageManager()) != null) {
            startActivityForResult(takePictureIntent, 1);
        }
```

```
    }
    @Override
    protected void onStart() {
        super.onStart();
    }

    @Override
    protected void onActivityResult(int requestCode, int resultCode, @Nullable Intent data) {
        super.onActivityResult(requestCode, resultCode, data);
        if (requestCode == 1 && resultCode == RESULT_OK) {
            Bundle extras = data.getExtras();
            Bitmap imageBitmap = (Bitmap) extras.get("data");
            imageView.setImageBitmap(imageBitmap);

            textImg= FirebaseVisionImage.fromBitmap(imageBitmap);
            textRecogniser = FirebaseVision.getInstance().getOnDeviceTextRecognizer();
            textRecogniser.processImage(textImg).addOnSuccessListener(new
OnSuccessListener<FirebaseVisionText>() {
                @Override
                public void onSuccess(FirebaseVisionText firebaseVisionText) {
                    Intent nextAct = new Intent(getApplicationContext(),CorrectImgData.class);
                    Bundle b = new Bundle();
                    b.putString("data",firebaseVisionText.getText());
                    nextAct.putExtra("txt",b);
                    startActivity(nextAct);

Toast.makeText(getApplicationContext(),firebaseVisionText.getText(),Toast.LENGTH_LONG).sh
ow();
                }
            }).addOnFailureListener(new OnFailureListener() {
                @Override
                public void onFailure(@NonNull Exception e) {
                    e.printStackTrace();
                    Toast.makeText(getApplicationContext(),"Failed",Toast.LENGTH_LONG).show();
                }
            });


            Toast.makeText(getApplicationContext(),"Success",Toast.LENGTH_LONG).show();
        }
        else{
            Toast.makeText(getApplicationContext(),"Failed",Toast.LENGTH_LONG).show();
        }
    }
```

```
    @Override
    protected void onResume() {
        super.onResume();

    }

    @Override
    protected void onPause() {
        super.onPause();
    }

    @Override
    protected void onStop() {
        super.onStop();
    }

    @Override
    protected void onDestroy() {
        super.onDestroy();
    }

    @Override
    public void onRequestPermissionsResult(int requestCode, String[] permissions, int[]
grantResults) {
        super.onRequestPermissionsResult(requestCode, permissions, grantResults);
        mainCamera.onRequestPermissionsResult(requestCode, permissions, grantResults);
    }
}
```

builddialog.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical" android:layout_width="match_parent"
    android:layout_height="match_parent">
    <EditText
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:id="@+id/budtext"
        android:hint="Budget"
        android:inputType="number"
```

```
    />

</LinearLayout>
```

Custom.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
  android:orientation="horizontal" android:layout_width="match_parent"
  android:layout_height="match_parent"

  >
  <TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:id="@+id/name"
    />
  <TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:id="@+id/price"
    android:layout_marginLeft="50dp"
    />
  <TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:id="@+id/date"
    android:layout_marginLeft="50dp"
    />

</LinearLayout>
```

Activity_correct_img_data.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
  xmlns:app="http://schemas.android.com/apk/res-auto"
  xmlns:tools="http://schemas.android.com/tools"
  android:layout_width="match_parent"
```

```
    android:layout_height="match_parent"
    tools:context=".CorrectImgData"
    android:background="@drawable/bg"
    android:orientation="horizontal"
    >
    <EditText
        android:layout_width="100dp"
        android:layout_height="wrap_content"
        android:id="@+id/name"
        android:layout_marginLeft="90dp"
        android:layout_marginTop="275dp"
        />
    <EditText
        android:layout_width="100dp"
        android:layout_height="wrap_content"
        android:id="@+id/price"
        android:layout_marginLeft="50dp"
        android:layout_marginTop="275dp"
        />
    <com.google.android.material.floatingactionbutton.FloatingActionButton
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:backgroundTint="#FFFFFF"
        app:srcCompat="@drawable/ic_arrow_forward_black_24dp"
        android:layout_gravity="center"
        android:id="@+id/insert"
        />

</LinearLayout>
```

App(Gradle File)

```
apply plugin: 'com.android.application'

android {
    compileSdkVersion 28
    buildToolsVersion "29.0.1"
    defaultConfig {
        applicationId "com.example.map_project"
        android.defaultConfig.vectorDrawables.useSupportLibrary = true
        minSdkVersion 16
        targetSdkVersion 28
```

```
        multiDexEnabled true
        versionCode 1
        versionName "1.0"
        testInstrumentationRunner "androidx.test.runner.AndroidJUnitRunner"
    }
    buildTypes {
        release {
            minifyEnabled false
            proguardFiles getDefaultProguardFile('proguard-android-optimize.txt'), 'proguard-
rules.pro'
        }
    }
}

dependencies {
    implementation fileTree(dir: 'libs', include: ['*.jar'])
    implementation 'androidx.appcompat:appcompat:1.0.2'
    implementation 'androidx.constraintlayout:constraintlayout:1.1.3'
    implementation 'com.android.support:design:28.0.0'
    implementation 'com.camerakit:camerakit:1.0.0-beta3.11'
    implementation 'com.camerakit:jpegkit:0.1.0'
    implementation 'org.jetbrains.kotlin:kotlin-stdlib-jdk7:1.3.0'
    implementation 'org.jetbrains.kotlinx:kotlinx-coroutines-android:1.0.0'
    implementation 'com.google.firebase:firebase-analytics:17.1.0'
    implementation 'com.google.firebase:firebase-ml-vision:23.0.0'
    implementation 'com.google.firebase:firebase-auth:19.0.0'
    implementation 'com.google.firebase:firebase-firestore:21.0.0'
    implementation 'com.android.support:multidex:1.0.3'
    testImplementation 'junit:junit:4.12'
    androidTestImplementation 'androidx.test:runner:1.1.1'
    androidTestImplementation 'androidx.test.espresso:espresso-core:3.1.1'
}
apply plugin: 'com.google.gms.google-services'
```

MAP_PROJECT(Gradle File)

```
buildscript {
    repositories {
        google()
        jcenter{
```

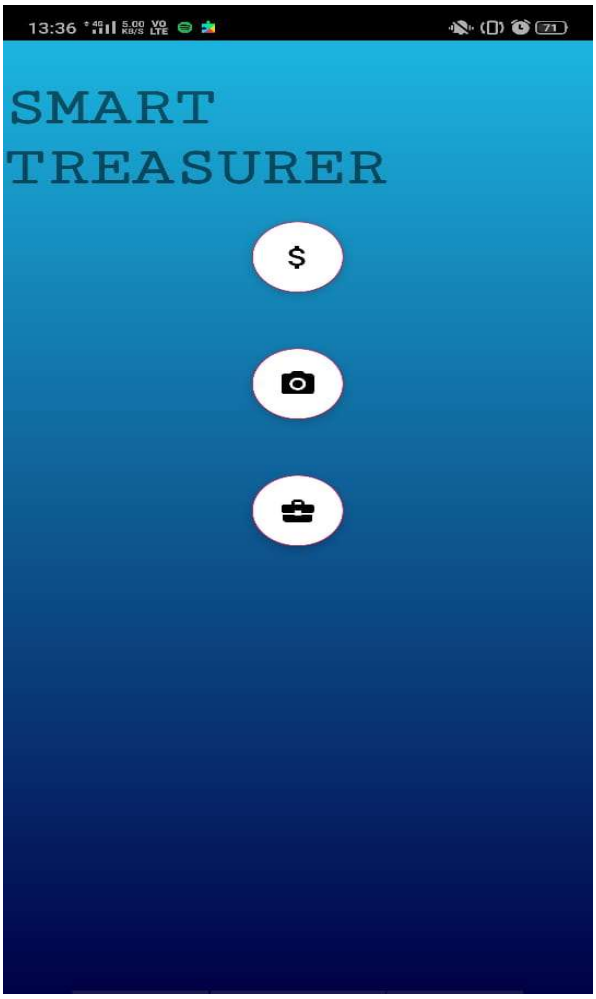
```
    }
    dependencies {
        classpath 'com.android.tools.build:gradle:3.5.1'
        classpath 'com.google.gms:google-services:4.2.0'
    }
}

allprojects {
    repositories {
        google()
        jcenter()
    }
}

task clean(type: Delete) {
    delete rootProject.buildDir
}
```

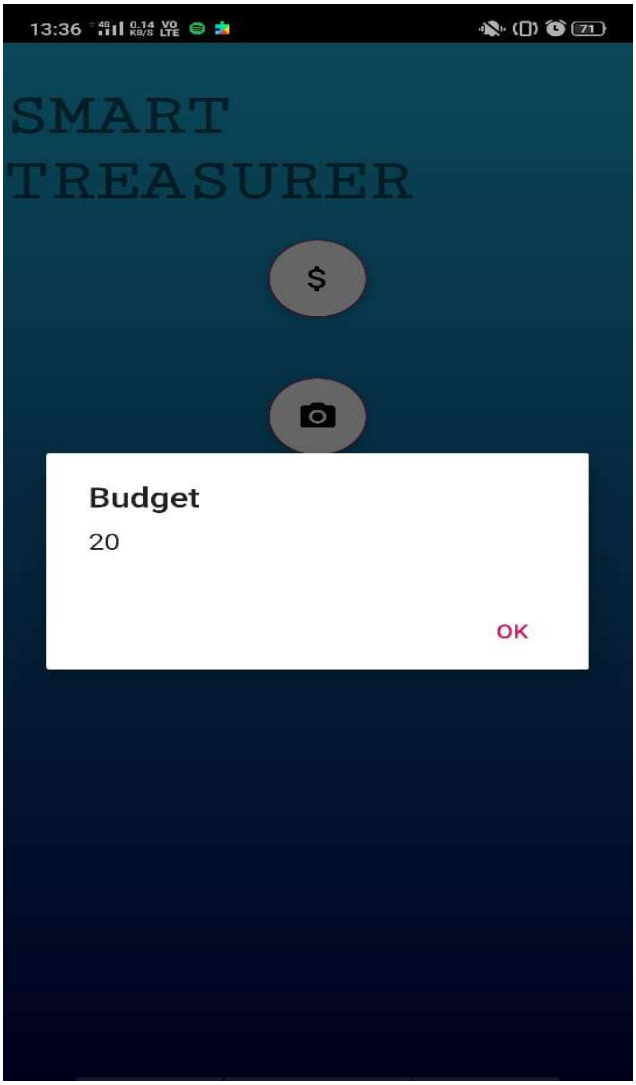
AndroidManifest.xml

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.map_project">

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/AppTheme">
        <activity android:name=".DBACT"></activity>
        <activity android:name=".CorrectImgData" />
        <activity android:name=".CAM" />
        <activity android:name=".MainActivity">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
```

```
    </application>

</manifest>
```

Screenshots from application:-




13:36
SMART
TREASURER
$
Budget
20
OK


13:37
MAP_PROJECT
FRULLATO 80.00 2019.10.09 AD at 16:49:22 GMT+05:30
FRULLATO 80.00 2019.10.09 AD at 17:37:19 GMT+05:30
FRULLATO 80.00 2019.10.09 AD at 17:38:53 GMT+05:30
FRULLATO 80.00 2019.10.09 AD at 17:45:34 GMT+05:30
FRULLATO 80.00 2019.10.09 AD at 17:46:00 GMT+05:30
MCA