**package** com.multiPingPong.pong;  
  
**import** android.annotation.SuppressLint;  
**import** android.content.ContentResolver;  
**import** android.content.Intent;  
**import** android.graphics.Bitmap;  
**import** android.net.Uri;  
**import** android.os.Bundle;  
**import** android.provider.MediaStore;  
**import** android.text.TextUtils;  
**import** android.util.Log;  
**import** android.view.View;  
**import** android.widget.Button;  
**import** android.widget.EditText;  
**import** android.widget.ImageView;  
**import** android.widget.ProgressBar;  
**import** android.widget.TextView;  
**import** android.widget.Toast;  
  
**import** androidx.annotation.NonNull;  
**import** androidx.annotation.Nullable;  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** com.google.android.gms.tasks.OnCompleteListener;  
**import** com.google.android.gms.tasks.OnFailureListener;  
**import** com.google.android.gms.tasks.OnSuccessListener;  
**import** com.google.android.gms.tasks.Task;  
**import** com.google.android.material.textfield.TextInputLayout;  
**import** com.google.firebase.auth.AuthResult;  
**import** com.google.firebase.auth.FirebaseAuth;  
**import** com.google.firebase.database.DataSnapshot;  
**import** com.google.firebase.database.DatabaseError;  
**import** com.google.firebase.database.DatabaseReference;  
**import** com.google.firebase.database.FirebaseDatabase;  
**import** com.google.firebase.database.ValueEventListener;  
**import** com.google.firebase.firestore.DocumentReference;  
**import** com.google.firebase.firestore.FirebaseFirestore;  
**import** com.google.firebase.storage.FirebaseStorage;  
**import** com.google.firebase.storage.StorageReference;  
**import** com.google.firebase.storage.UploadTask;  
**import** com.squareup.picasso.Picasso;  
  
**import** java.io.IOException;  
  
  
**public class** Register **extends** AppCompatActivity {  
 **public static final** String ***TAG*** = **"TAG"**;  
 EditText **name**, **email**, **password**;  
 Button **register**;  
 TextView **mLoginButton**;  
 FirebaseAuth **fAuth**;*//creating instance of firebase* ProgressBar **progressBar**;  
 **private** FirebaseDatabase **firebaseDatabase**;  
 **private** DatabaseReference **databaseReference**;  
 **private** FirebaseStorage **firebaseStorage**;  
 **private** StorageReference **storageReference**;  
 **private** ImageView **userProfilePic**;  
 **public static int** *PICK\_Image* = 143;  
 String **userID**;  
 Uri **imagepath**;  
 **private int count** = 0;  
 String **Uname**,**emai**,**pass**;  
  
  
 @Override  
 **protected void** onCreate(@Nullable Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***register***);  
 Intent intent = getIntent();  
 setupUIViews();  
 *// userProfilePic = findViewById(R.id.one);* **fAuth** = FirebaseAuth.*getInstance*();  
 **firebaseStorage** = FirebaseStorage.*getInstance*();  
 **storageReference** = **firebaseStorage**.getReference();*/\*This basically tells us where data will be stored and under which parent  
data will be stored and "storageReference" points to the root and under it various child nodes or subdirectories will be created.\*/* **progressBar** = (ProgressBar) findViewById(R.id.***progress\_bar***);  
  
  
 */\*As soon as ImageView is clicked we want to generate an intent which would pick up images from Gallery\*/* **userProfilePic**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 **if** (**count** == 0) {  
 Intent intent = **new** Intent();  
 intent.setType(**"image/\*"**);*/\*here we have set intent to pick any type of images if we want to have specificaly .png  
images then you should use "intent.setType("image/png");" ,here there is a "\*" inside "image/\*" so it means everything inside image  
 category .If you want audio type files then use "intent.setType("audio/\*");"\*/* intent.setAction(intent.***ACTION\_GET\_CONTENT***);*/\*Since we want to get images from gallery therefore we have set  
 action as "ACTION\_GET\_CONTENT" \*/* startActivityForResult(Intent.*createChooser*(intent, **"Select an Image"**), *PICK\_Image*);  
 **count** = **count** + 1;  
 } **else** {  
 StorageReference imagereference = **storageReference**.child(**fAuth**.getUid()).child(**"Images"**).child(**"Profile pic"**);  
 UploadTask uploadTask = imagereference.putFile(**imagepath**);  
 uploadTask.addOnFailureListener(**new** OnFailureListener() {  
 @Override  
 **public void** onFailure(@NonNull Exception e) {  
 Toast.*makeText*(Register.**this**, **"Failed Uploading an Image"**, Toast.***LENGTH\_SHORT***).show();  
 }  
 });  
 uploadTask.addOnSuccessListener(**new** OnSuccessListener<UploadTask.TaskSnapshot>() {  
 @Override  
 **public void** onSuccess(UploadTask.TaskSnapshot taskSnapshot) {  
 Toast.*makeText*(Register.**this**, **"Image Uploaded"**, Toast.***LENGTH\_SHORT***).show();  
 }  
 });  
 }  
 }  
 });  
  
 **register**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 **Uname** = **name**.getText().toString().trim();  
 **emai** = **email**.getText().toString().trim();  
 **pass** = **password**.getText().toString().trim();  
  
 */\*Validating whether the email and password are correctly entered or not.So we first check whether its empty or not by using utility  
class "TextUtils"\*/* **if** (TextUtils.*isEmpty*(**emai**)) {  
 **email**.setError(**"Email is required"**);  
 }  
 **if** (TextUtils.*isEmpty*(**pass**)) {  
 **password**.setError(**"Password is required"**);  
 }  
 **if** (**password**.length() < 6) {  
 **password**.setError(**"Password maust be >=6 characters"**);  
 }  
 **progressBar**.setVisibility(View.***VISIBLE***);  
 *//Now we have to register the user in the firebase* **fAuth**.createUserWithEmailAndPassword(**emai**, **pass**).addOnCompleteListener(**new** OnCompleteListener<AuthResult>() {  
 @Override  
 **public void** onComplete(@NonNull Task<AuthResult> task) {  
 */\*Here the task of registering the user is called "Task"\*/* **if** (task.isSuccessful()) {  
 **userID** = **fAuth**.getCurrentUser().getUid();  
*/\*\*/* sendUserData();  
 Toast.*makeText*(Register.**this**, **"User created"**, Toast.***LENGTH\_LONG***).show();  
  
  
 startActivity(**new** Intent(getApplicationContext(), StartActivity.**class**));*/\*If task is successful we will redirect  
 the user to the main activity page\*/* } **else** {  
 Toast.*makeText*(Register.**this**, task.getException().getMessage(), Toast.***LENGTH\_LONG***).show();  
 **progressBar**.setVisibility(View.***GONE***);  
 }  
 }  
 });  
 }  
 });  
  
 **mLoginButton**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 startActivity(**new** Intent(Register.**this**, Login.**class**));  
 }  
 });  
 }  
  
 @Override  
 **protected void** onActivityResult(**int** requestCode, **int** resultCode, @Nullable Intent data) {  
 **if** (requestCode == *PICK\_Image* && resultCode != ***RESULT\_OK*** && data.getData() != **null**) {  
 **imagepath** = data.getData();  
 **try** {  
 Bitmap bitmap = MediaStore.Images.Media.*getBitmap*(getContentResolver(), **imagepath**);*/\*SEE right now the image data which  
 we have got is in form of path and it can't be processed so we need to convert it into Bitmap form so that it can be processed\*/* **userProfilePic**.setImageBitmap(bitmap);  
 }  
 **catch** (IOException e) {  
 e.printStackTrace();  
 }  
 }  
 **super**.onActivityResult(requestCode, resultCode, data);  
 }  
  
  
 **public void** sendUserData() {  
 FirebaseDatabase firebaseDatabase = FirebaseDatabase.*getInstance*();  
 DatabaseReference myRef = firebaseDatabase.getReference(**fAuth**.getUid());  
 StorageReference imageReference = **storageReference**.child(**fAuth**.getUid()).child(**"Images"**).child(**"Profile Pic"**); *//User id/Images/Profile Pic.jpg  
 /\*\*/* UploadTask uploadTask = imageReference.putFile(**imagepath**);*//Now we have to upload the image data using class "UploadTask"* uploadTask.addOnFailureListener(**new** OnFailureListener() {  
 @Override  
 **public void** onFailure(@NonNull Exception e) {  
 Toast.*makeText*(Register.**this**, **"Upload failed!"**, Toast.***LENGTH\_SHORT***).show();  
 }  
 }).addOnCompleteListener(**new** OnCompleteListener<UploadTask.TaskSnapshot>() {  
 @Override  
 **public void** onComplete(@NonNull Task<UploadTask.TaskSnapshot> task) {  
 Toast.*makeText*(Register.**this**, **"Upload successful!"**, Toast.***LENGTH\_SHORT***).show();  
 }  
 });  
 Item item = **new** Item(**Uname**, **emai**, **pass**);  
 myRef.setValue(item);  
 }  
  
 @SuppressLint(**"WrongViewCast"**)  
 **private void** setupUIViews(){  
 **userProfilePic** = (ImageView)findViewById(R.id.***one***);  
 **name** = (EditText) findViewById(R.id.***two***);  
 **email** = (EditText) findViewById(R.id.***three***);  
 **password** = (EditText) findViewById(R.id.***four***);  
 **register** = (Button) findViewById(R.id.***five***);  
 **mLoginButton** = (TextView) findViewById(R.id.***six***);  
  
 }  
}