**MAIN ACTIVITY**

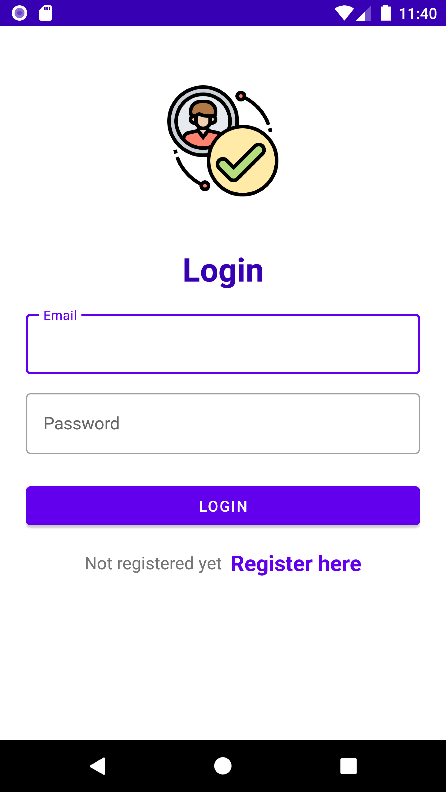
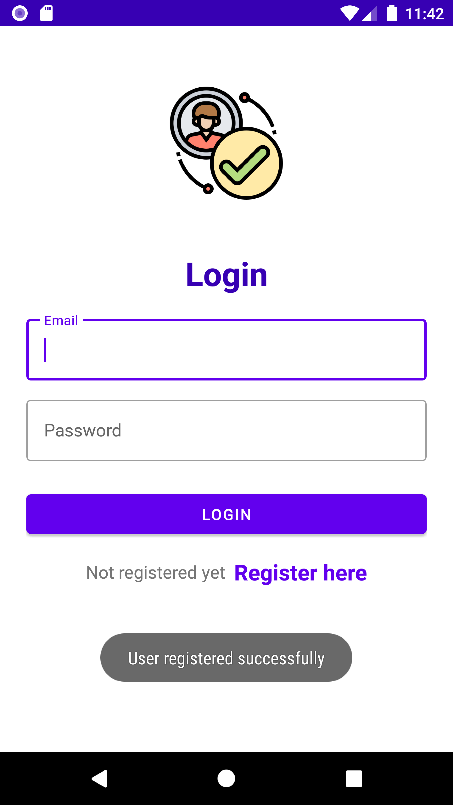
*package* com.example.authenticate\_exp4;  
  
*import* androidx.appcompat.app.AppCompatActivity;  
  
*import* android.content.Intent;  
*import* android.os.Bundle;  
*import* android.widget.Button;  
  
*import* com.google.firebase.auth.FirebaseAuth;  
*import* com.google.firebase.auth.FirebaseUser;  
  
*public class* MainActivity *extends* AppCompatActivity {  
  
 Button btnLogOut;  
 FirebaseAuth mAuth;  
  
 @Override  
 *protected void* onCreate(Bundle savedInstanceState) {  
 *super*.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 btnLogOut = findViewById(R.id.*btnLogout*);  
 mAuth = FirebaseAuth.*getInstance*();  
  
 btnLogOut.setOnClickListener(view ->{  
 mAuth.signOut();  
 startActivity(*new* Intent(MainActivity.*this*, LoginActivity.*class*));  
 });  
 }  
 @Override  
 *protected void* onStart() {  
 *super*.onStart();  
 *//check if any user is currently signed in or else return null if there is no one* FirebaseUser user = mAuth.getCurrentUser();  
 *if* (user == *null*){  
 *//this will redirect the user to the Login activity* startActivity(*new* Intent(MainActivity.*this*, LoginActivity.*class*));  
 }  
 }  
}

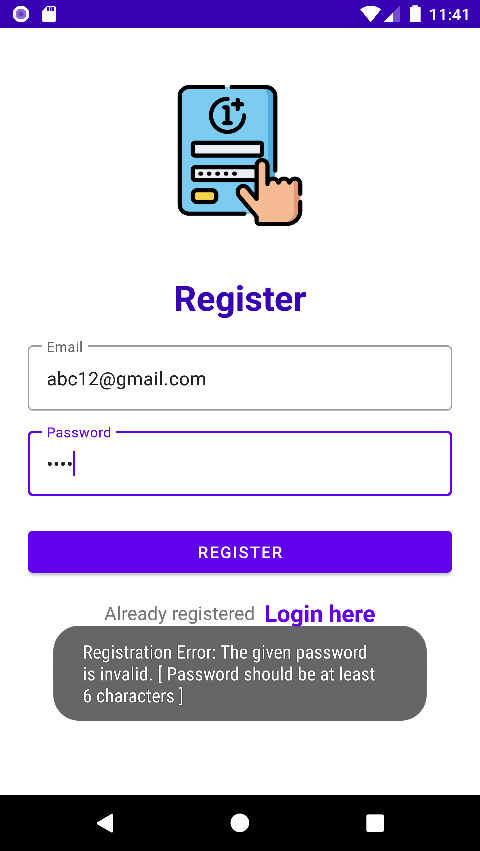
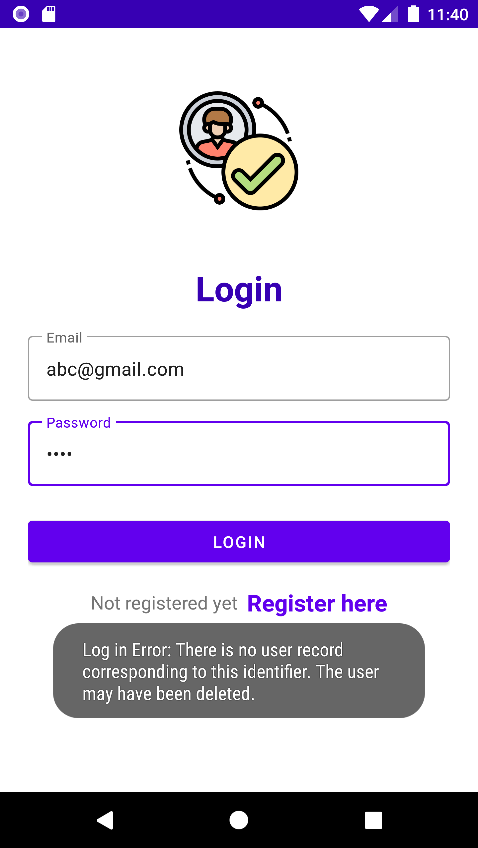
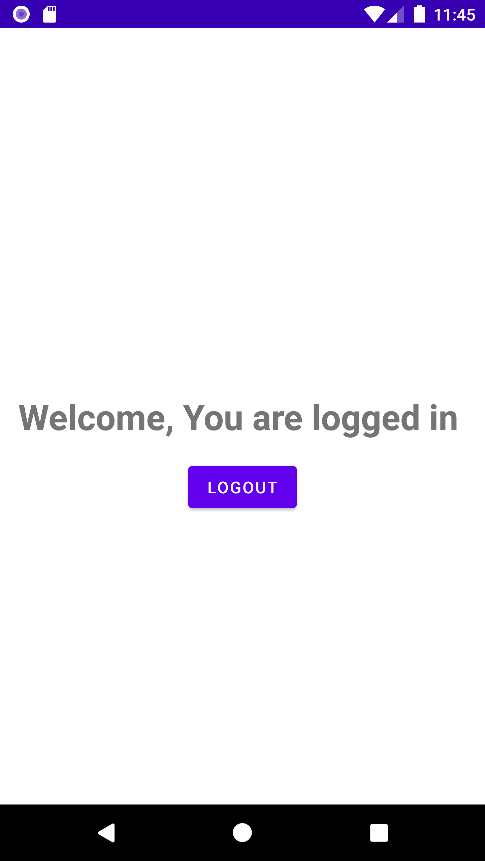
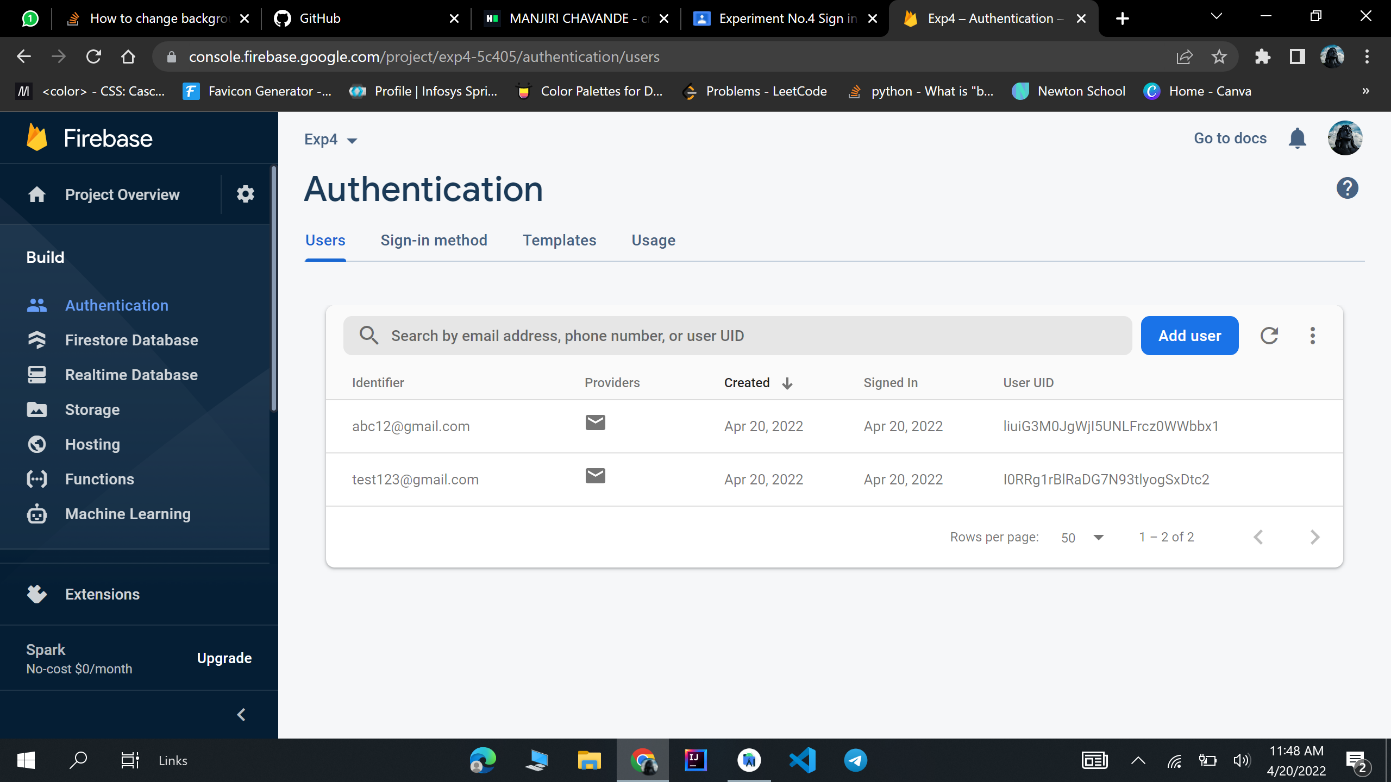
**REGISTER ACTIVITY**

*package* com.example.authenticate\_exp4;  
  
*import* android.content.Intent;  
*import* android.os.Bundle;  
*import* android.text.TextUtils;  
*import* android.widget.Button;  
*import* android.widget.TextView;  
*import* android.widget.Toast;  
  
*import* androidx.annotation.NonNull;  
*import* androidx.appcompat.app.AppCompatActivity;  
  
*import* com.google.android.gms.tasks.*OnCompleteListener*;  
*import* com.google.android.gms.tasks.Task;  
*import* com.google.android.material.textfield.TextInputEditText;  
*import* com.google.firebase.auth.*AuthResult*;  
*import* com.google.firebase.auth.FirebaseAuth;  
  
*public class* RegisterActivity *extends* AppCompatActivity {  
  
 TextInputEditText etRegEmail;  
 TextInputEditText etRegPassword;  
 TextView tvLoginHere;  
 Button btnRegister;  
  
 FirebaseAuth mAuth;  
  
 @Override  
 *protected void* onCreate(Bundle savedInstanceState) {  
 *super*.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_register*);  
  
 etRegEmail = findViewById(R.id.*etRegEmail*);  
 etRegPassword = findViewById(R.id.*etRegPass*);  
 tvLoginHere = findViewById(R.id.*tvLoginHere*);  
 btnRegister = findViewById(R.id.*btnRegister*);  
  
 mAuth = FirebaseAuth.*getInstance*();*//get instance of the firebase in the register activity* btnRegister.setOnClickListener(view ->{  
 createUser();  
 });  
  
 tvLoginHere.setOnClickListener(view ->{  
 startActivity(*new* Intent(RegisterActivity.*this*, LoginActivity.*class*));  
 });  
 }  
  
 *private void* createUser(){  
 *//stores the string which user enters* String email = etRegEmail.getText().toString();  
 String password = etRegPassword.getText().toString();  
  
 *if* (TextUtils.*isEmpty*(email)){  
 etRegEmail.setError("Email cannot be empty");  
 etRegEmail.requestFocus();  
 }*else if* (TextUtils.*isEmpty*(password)){  
 etRegPassword.setError("Password cannot be empty");  
 etRegPassword.requestFocus();  
 }*else*{  
 *//this is a method of the firebase* mAuth.createUserWithEmailAndPassword(email,password).addOnCompleteListener(*new* OnCompleteListener<*AuthResult*>() {  
 @Override  
 *public void* onComplete(@NonNull Task<*AuthResult*> task) {  
 *if* (task.isSuccessful()){  
 Toast.*makeText*(RegisterActivity.*this*, "User registered successfully", Toast.*LENGTH\_SHORT*).show();  
 startActivity(*new* Intent(RegisterActivity.*this*, LoginActivity.*class*));  
 }*else*{  
 Toast.*makeText*(RegisterActivity.*this*, "Registration Error: " + task.getException().getMessage(), Toast.*LENGTH\_SHORT*).show();  
 }  
 }  
 });  
 }  
 }  
  
}

**LOGIN ACTIVITY**

*package* com.example.authenticate\_exp4;  
  
*import* androidx.annotation.NonNull;  
*import* androidx.appcompat.app.AppCompatActivity;  
  
*import* android.content.Intent;  
*import* android.os.Bundle;  
*import* android.text.TextUtils;  
*import* android.widget.Button;  
*import* android.widget.TextView;  
*import* android.widget.Toast;  
  
*import* com.google.android.gms.tasks.*OnCompleteListener*;  
*import* com.google.android.gms.tasks.Task;  
*import* com.google.android.material.textfield.TextInputEditText;  
*import* com.google.firebase.auth.*AuthResult*;  
*import* com.google.firebase.auth.FirebaseAuth;  
  
*public class* LoginActivity *extends* AppCompatActivity {  
  
 TextInputEditText etLoginEmail;  
 TextInputEditText etLoginPassword;  
 TextView tvRegisterHere;  
 Button btnLogin;  
  
 FirebaseAuth mAuth;  
  
 @Override  
 *protected void* onCreate(Bundle savedInstanceState) {  
 *super*.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_login*);  
  
 etLoginEmail = findViewById(R.id.*etLoginEmail*);  
 etLoginPassword = findViewById(R.id.*etLoginPass*);  
 tvRegisterHere = findViewById(R.id.*tvRegisterHere*);  
 btnLogin = findViewById(R.id.*btnLogin*);  
  
 mAuth = FirebaseAuth.*getInstance*();  
  
 btnLogin.setOnClickListener(view -> {  
 loginUser();  
 });  
 tvRegisterHere.setOnClickListener(view ->{  
 startActivity(*new* Intent(LoginActivity.*this*, RegisterActivity.*class*));  
 });  
 }  
  
 *private void* loginUser(){  
 String email = etLoginEmail.getText().toString();  
 String password = etLoginPassword.getText().toString();  
  
 *if* (TextUtils.*isEmpty*(email)){  
 etLoginEmail.setError("Email cannot be empty");  
 etLoginEmail.requestFocus();  
 }*else if* (TextUtils.*isEmpty*(password)){  
 etLoginPassword.setError("Password cannot be empty");  
 etLoginPassword.requestFocus();  
 }*else*{  
 mAuth.signInWithEmailAndPassword(email,password).addOnCompleteListener(*new* OnCompleteListener<*AuthResult*>() {  
 @Override  
 *public void* onComplete(@NonNull Task<*AuthResult*> task) {  
 *if* (task.isSuccessful()){ *//if the user is registered successfully* Toast.*makeText*(LoginActivity.*this*, "User logged in successfully", Toast.*LENGTH\_SHORT*).show();  
 startActivity(*new* Intent(LoginActivity.*this*, MainActivity.*class*));  
 }*else*{  
 Toast.*makeText*(LoginActivity.*this*, "Log in Error: " + task.getException().getMessage(), Toast.*LENGTH\_SHORT*).show();  
 }  
 }  
 });  
 }  
 }  
  
}

****

**  
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