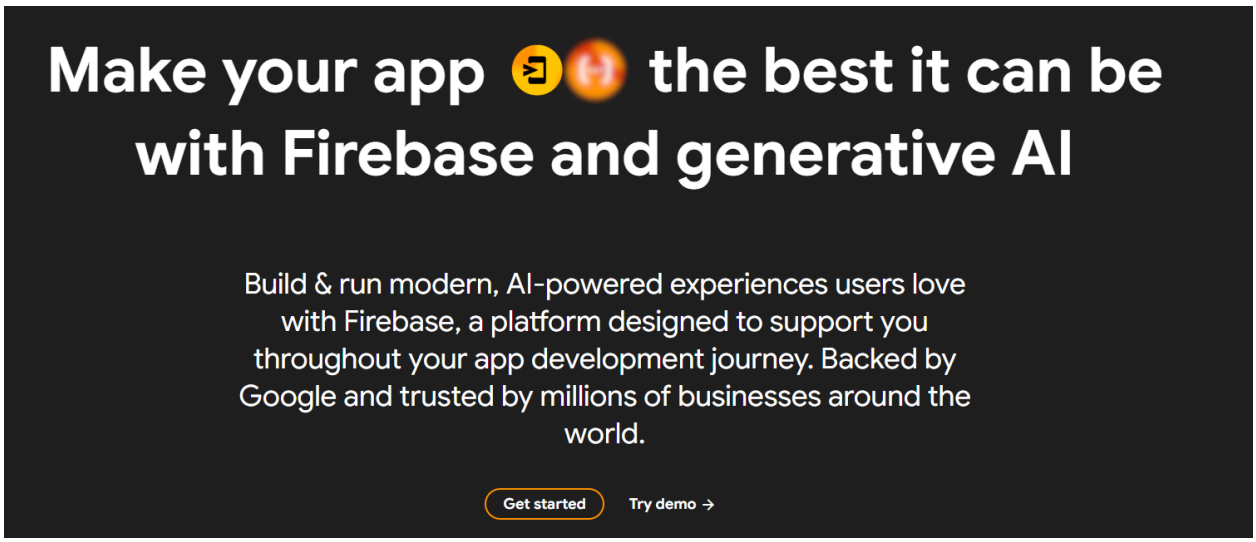
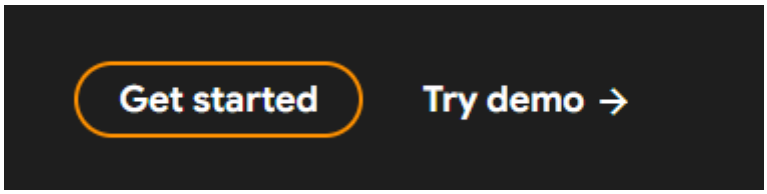
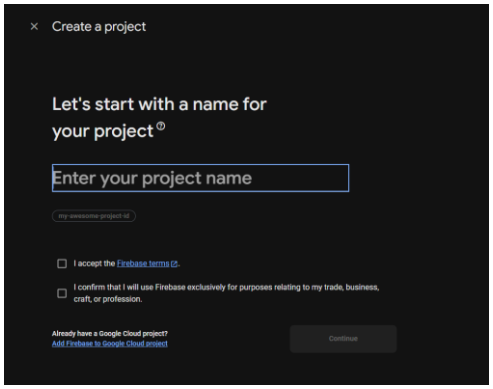
Практическая работа номер 12

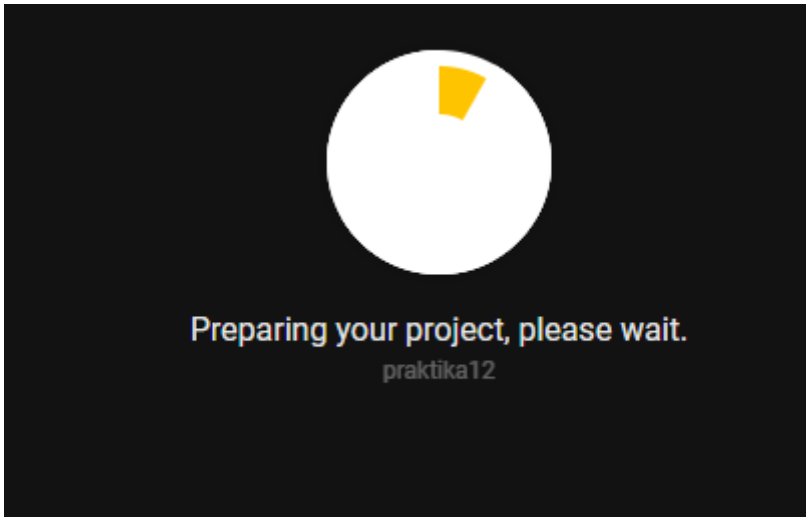
1.Создаем новый проект

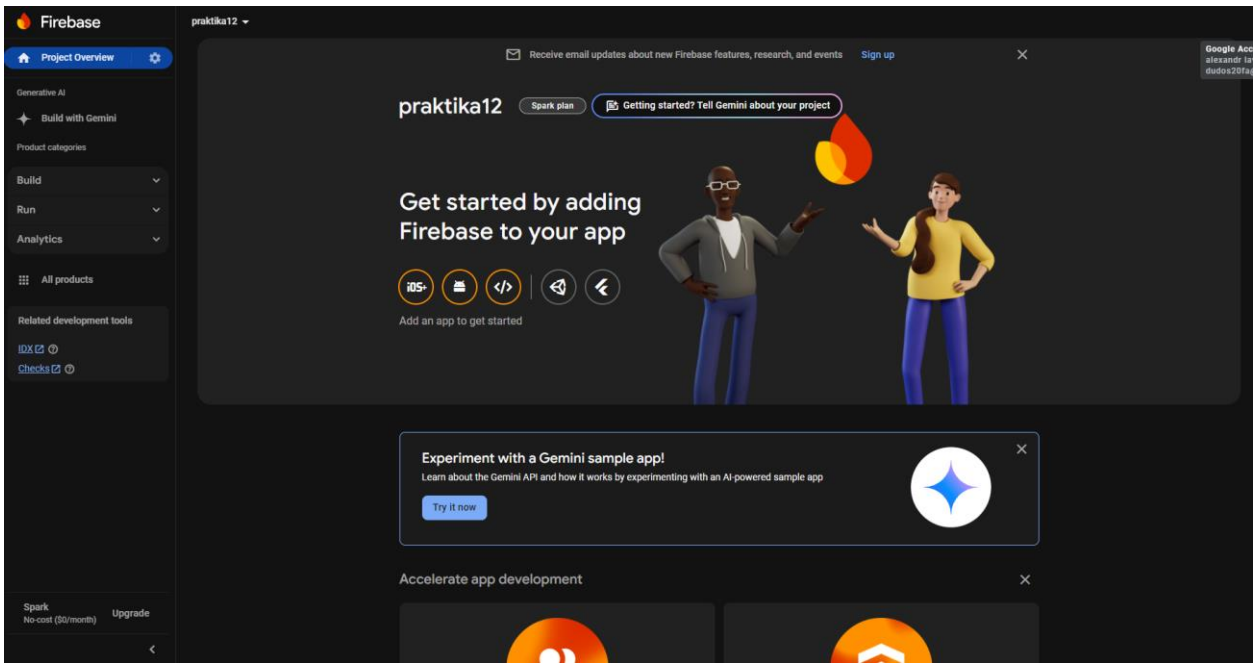
2.Создаем проект firebase

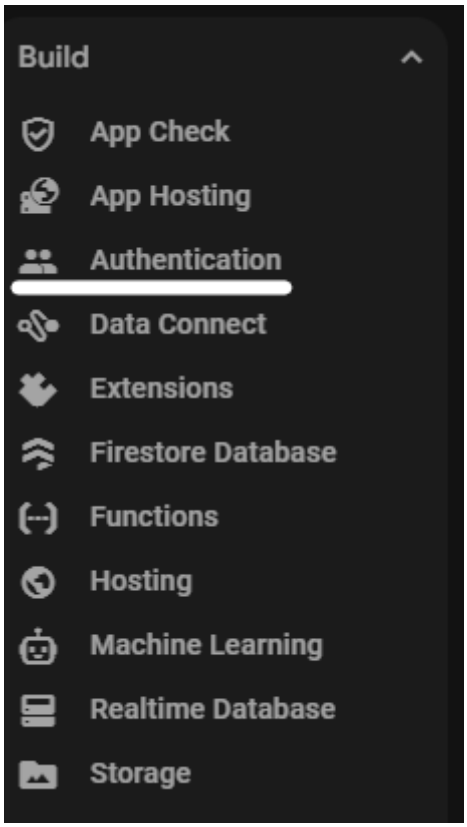




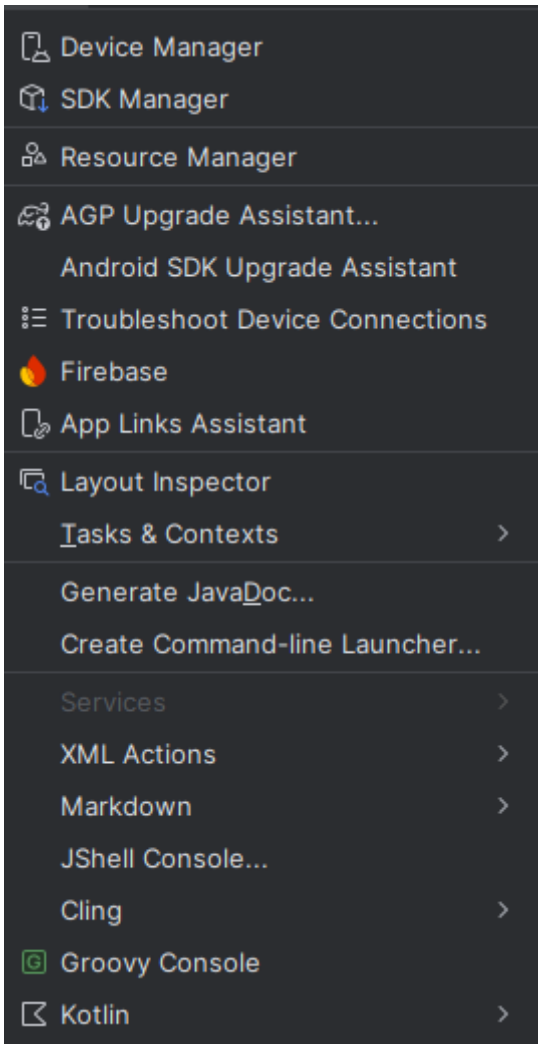


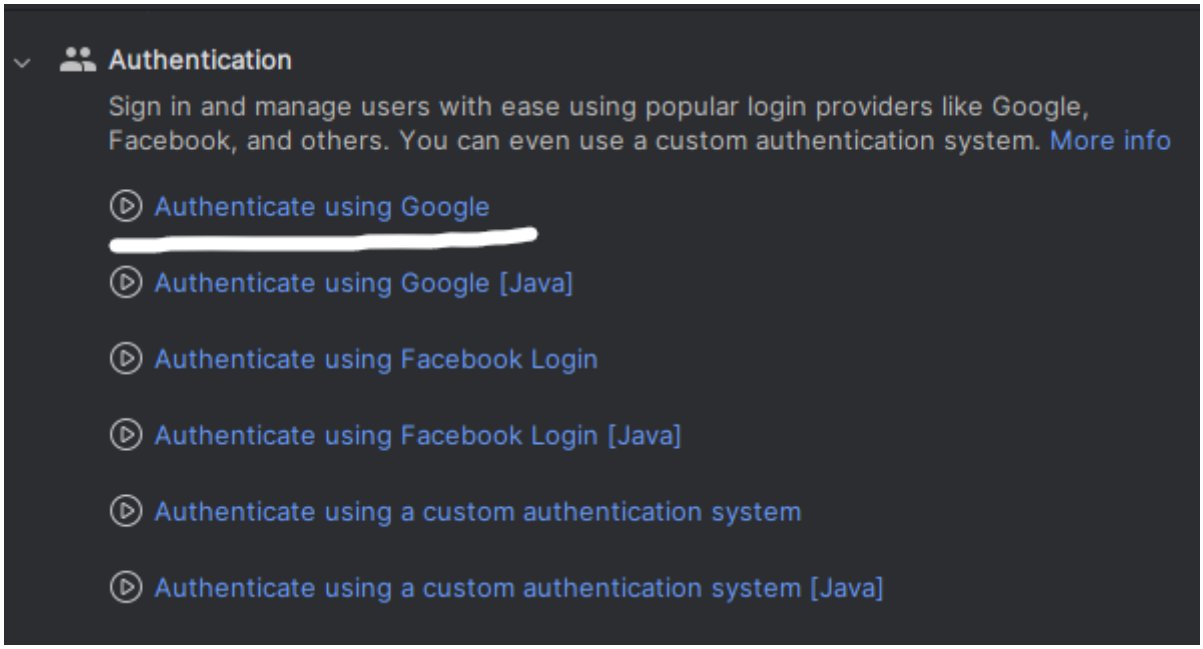



Firebase
praktika12
Project Overview
Generative AI
Build with Gemini
Product categories
Build
Run
Analytics
All products
Related development tools
IDX
Checks
Spark
No-cost ($0/month)
Upgrade
Receive email updates about new Firebase features, research, and events
Sign up
praktika12
Spark plan
Getting started? Tell Gemini about your project
Get started by adding Firebase to your app
Add an app to get started
Experiment with a Gemini sample app!
Learn about the Gemini API and how it works by experimenting with an AI-powered sample app
Try it now
Accelerate app development


Build
App Check
App Hosting
Authentication
Data Connect
Extensions
Firestore Database
Functions
Hosting
Machine Learning
Realtime Database
Storage

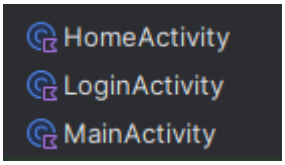
3. Заходим в android studio и соединяемся с firebase

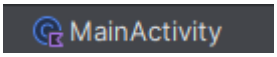




Your Android Studio project is connected to your Firebase Android app

You can now use Firebase in your project! Go back to Android Studio to start using one of the Firebase SDKs.

4.Пишем код и оформляем 



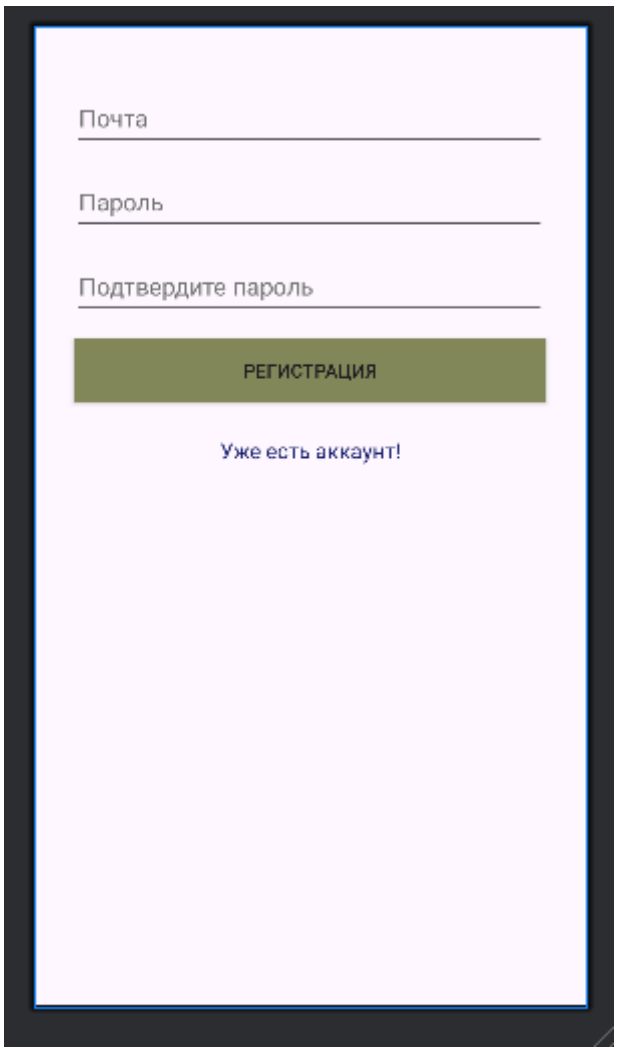

```
class MainActivity : AppCompatActivity() {
    // Объявление переменных для пользовательского интерфейса
    lateinit var etEmail: EditText
    lateinit var etConfPass: EditText
    private lateinit var etPass: EditText
    private lateinit var btnSignUp: Button
    lateinit var tvRedirectLogin: TextView

    // Обьект для аутентификации с помощью Firebase
    private lateinit var auth: FirebaseAuth
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        enableEdgeToEdge()
        setContentView(R.layout.activity_main)
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main)) { v, insets ->
            val systemBars =
                insets.getInsets(WindowInsetsCompat.Type.systemBars())
            v.setPadding(
                systemBars.left, systemBars.top, systemBars.right,
                systemBars.bottom
            )
            insets
        }
        //инициализация пользовательского интерфейса
        etEmail = findViewById(R.id.etSEmailAddress)
        etConfPass = findViewById(R.id.etSConfPassword)
        etPass = findViewById(R.id.etSPassword)
        btnSignUp = findViewById(R.id.btnSSigned)
        tvRedirectLogin = findViewById(R.id.tvRedirectLogin)
        // Инициализация объекта FirebaseAuth для аутентификации
        auth = Firebase.auth
        btnSignUp.setOnClickListener {
            singUpUser()
        }
        //Если у нас, есть аккаунт переходим на активность LoginActivity
        tvRedirectLogin.setOnClickListener {
            intent = Intent( packageContext: this, LoginActivity::class.java)
            startActivity(intent)
        }
    }
```

```
    private fun singUpUser() {
        //Все поля с editText,сохраняем в переменные в виде строк текста
        val email = etEmail.text.toString()
        val pass = etPass.text.toString()
        val confPass = etConfPass.text.toString()
        //Проверка на пустые поля
        if (email.isBlank() || pass.isBlank() || confPass.isBlank()) {
            Toast.makeText(
                context: this, text: "Почта и пароль не могут быть пустыми",
                Toast.LENGTH_SHORT
            ).show()
            return
        }
        //Проверка на совпадение паролей
        if (pass != confPass) {
            Toast.makeText( context: this, text: "Пароль и пароль подтверждения не совпадают", Toast.LENGTH_SHORT)
                .show()
            return
        }
        //Создание пользователя с использованием email и пароля через
        Firebase

        auth.createUserWithEmailAndPassword(email, pass).addOnCompleteListener(this) {
            if (it.isSuccessful) {
                Toast.makeText( context: this, text: "Регистрация успешна", Toast.LENGTH_SHORT).show()
                intent = Intent( packageContext: this, MainActivity::class.java)
                startActivity(intent)
            } else {
                Toast.makeText( context: this, text: "Ошибка регистрации", Toast.LENGTH_SHORT).show()
            }
        }
    }
}
```

activity_main.xml

```
<androidx.constraintlayout.widget.ConstraintLayout
    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:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <LinearLayout
        android:id="@+id/linearLayout"
        android:layout_width="0dp"
        android:layout_height="0dp"
        android:orientation="vertical"
        android:padding="15dp"
        android:paddingTop="40dp"
        android:paddingBottom="40dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintBottom_toBottomOf="parent">
        <EditText
            android:id="@+id/etSEmailAddress"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginLeft="15dp"
            android:layout_marginTop="30dp"
            android:layout_marginRight="15dp"
            android:autofillHints="emailAddress"
            android:ems="10"
            android:hint="Почта"
            android:inputType="textEmailAddress"
            android:minHeight="48dp"
            android:textColorHint="#757575" />
        <EditText
            android:id="@+id/etSPassword"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginLeft="15dp"
            android:layout_marginTop="15dp"
            android:layout_marginRight="15dp"
```

```
        <EditText
            android:id="@+id/etSConfPassword"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginLeft="15dp"
            android:layout_marginTop="15dp"
            android:layout_marginRight="15dp"
            android:autofillHints="password"
            android:ems="10"
            android:hint="Подтвердите пароль"
            android:inputType="textPassword"
            android:minHeight="48dp"
            android:textColorHint="#757575"
            tools:ignore="TextContrastCheck" />
        <androidx.appcompat.widget.AppCompatButton
            android:id="@+id/btnSSigned"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_margin="15dp"
            android:background="#828759"
            android:text="Регистрация" />
        <TextView
            android:id="@+id/tvRedirectLogin"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:gravity="center_horizontal"
            android:layout_margin="10dp"
            android:text="Уже есть аккаунт!"
            android:textColor="#18206F"
            android:textSize="16sp" />
    </LinearLayout>
</androidx.constraintlayout.widget.ConstraintLayout>
```



LoginActivity

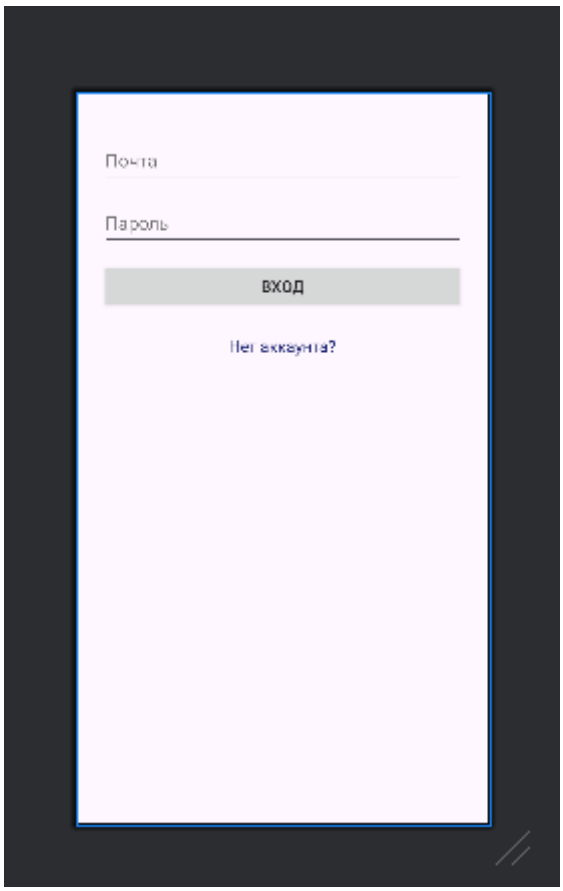
```
class LoginActivity : AppCompatActivity() {
    lateinit var etEmail: EditText
    private lateinit var etPass: EditText
    lateinit var btnLogin: Button
    lateinit var auth: FirebaseAuth
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        enableEdgeToEdge()
        setContentView(R.layout.activity_login)
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main)) {
                v, insets ->
            val systemBars =
                insets.getInsets(WindowInsetsCompat.Type.systemBars())
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
                systemBars.bottom)
            insets
        }
        tvRedirectSignUp = findViewById(R.id.tvRedirectLogin)
        btnLogin = findViewById(R.id.btnLogin)
        etEmail = findViewById(R.id.etEmailAddress)
        etPass = findViewById(R.id.etPassword)
        auth = FirebaseAuth.getInstance()

        btnLogin.setOnClickListener {
            login()
        }
        tvRedirectSignUp.setOnClickListener {
            val intent = Intent( packageContext: this, MainActivity::class.java)
            startActivity(intent)
        }
    }
    private fun login() {
        val email = etEmail.text.toString()
        val pass = etPass.text.toString()

        auth.signInWithEmailAndPassword(email,pass).addOnCompleteListener(this){
            if (it.isSuccessful) {
                Toast.makeText( context: this,  text: "Вход успешен!",
                    Toast.LENGTH_SHORT).show()
                intent = Intent( packageContext: this, HomeActivity::class.java)
                startActivity(intent)
            } else
```

```
            } else
                Toast.makeText( context: this,  text: "Ошибка входа ",
                    Toast.LENGTH_SHORT).show()
            }
        }
    }
```

</> activity_login.xml

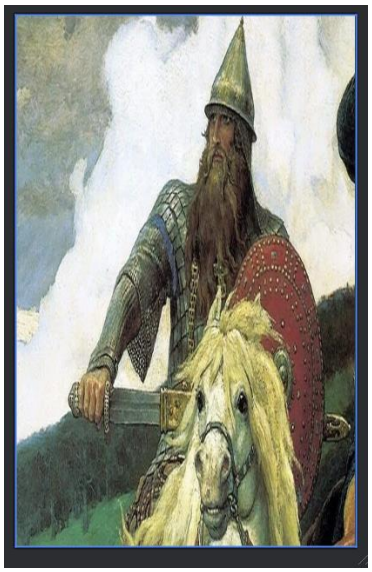
```
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".LoginActivity">

    <LinearLayout
        android:id="@+id/linearLayout"
        android:layout_width="421dp"
        android:layout_height="733dp"
        android:orientation="vertical"
        android:padding="15dp"
        android:paddingTop="40dp"
        android:paddingBottom="40dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent">

        <EditText
            android:id="@+id/etEmailAddress"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginLeft="15dp"
            android:layout_marginTop="30dp"
            android:layout_marginRight="15dp"
            android:autofillHints="emailAddress"
            android:ems="10"
            android:hint="Почта"
            android:inputType="textEmailAddress"
            android:minHeight="48dp"
            android:textColorHint="#757575" />

        <EditText
            android:id="@+id/etPassword"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
```

```
        <androidx.appcompat.widget.AppCompatButton
            android:id="@+id/btnLogin"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_margin="15dp"
            android:text="ВХОД"
            android:textSize="16sp" />

        <TextView
            android:id="@+id/tvRedirectLogin"
            android:layout_width="371dp"
            android:layout_height="71dp"
            android:layout_margin="10dp"
            android:clickable="true"
            android:focusable="true"
            android:gravity="center_horizontal"
            android:text="Нет аккаунта?"
            android:textColor="#18206F"
            android:textSize="16sp" />
    </LinearLayout>
</androidx.constraintlayout.widget.ConstraintLayout>
```

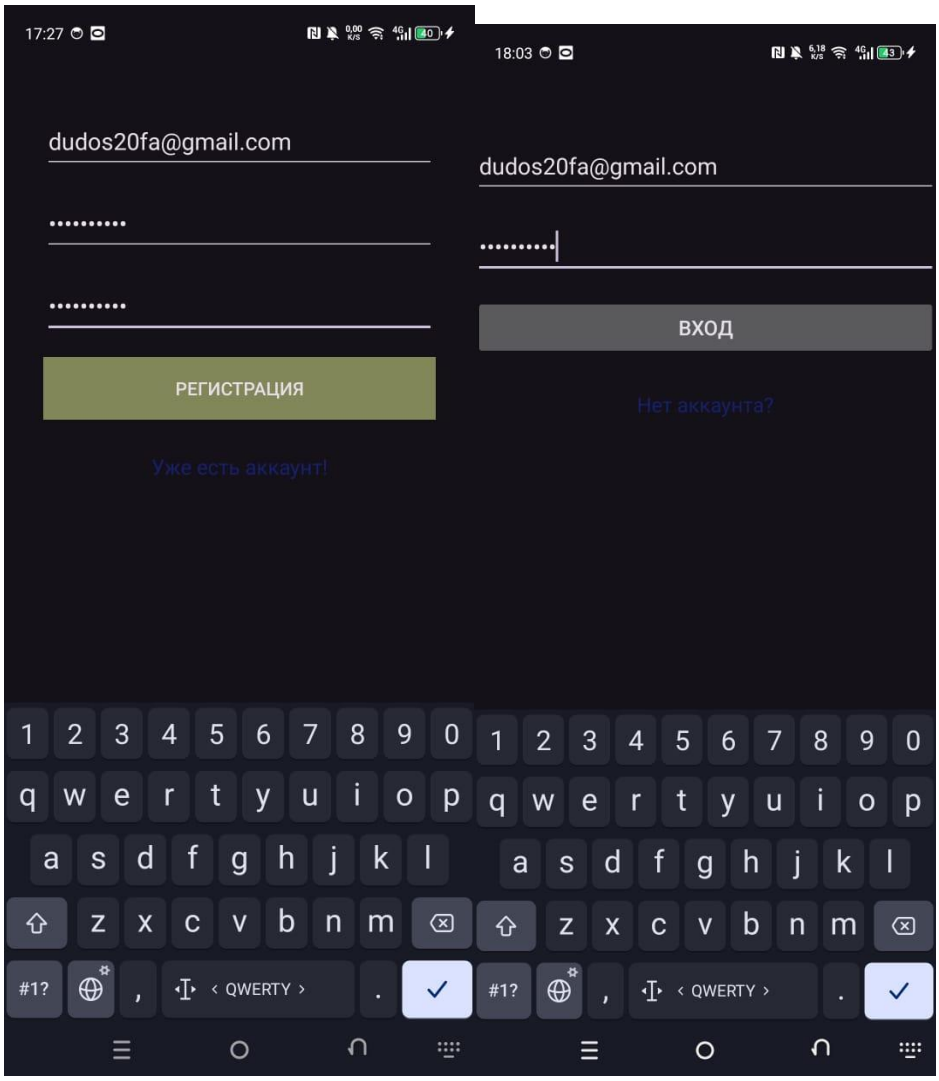
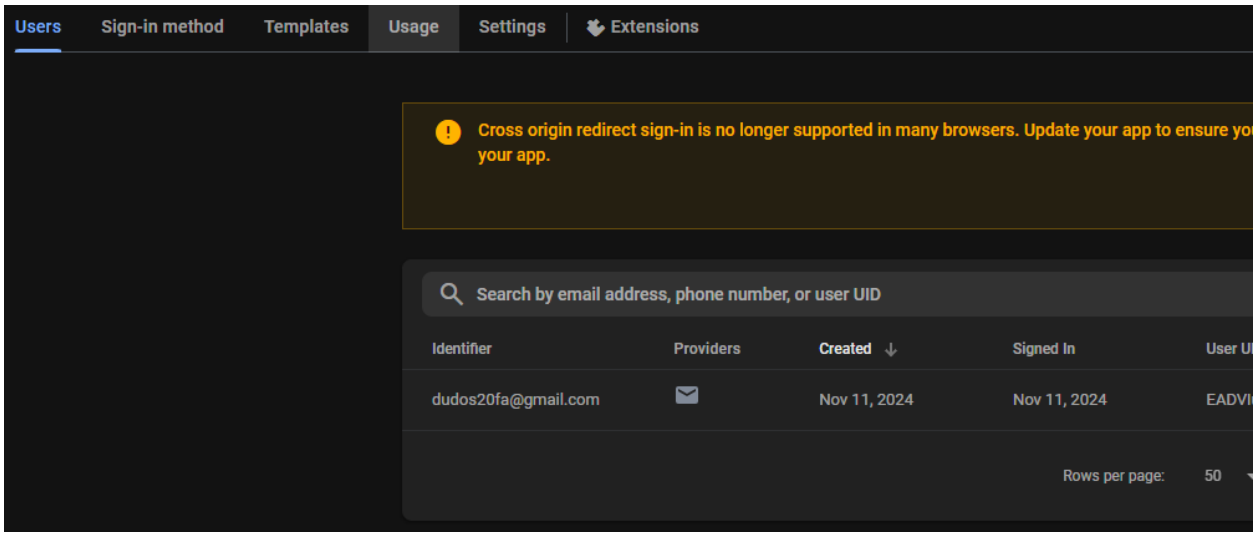


activity_home.xml

```
<androidx.constraintlayout.widget.ConstraintLayout 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:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@drawable/obr"
    tools:context=".HomeActivity">

</androidx.constraintlayout.widget.ConstraintLayout>
```



5.Вводим наши данные



6.Наш профиль появился в firebase