

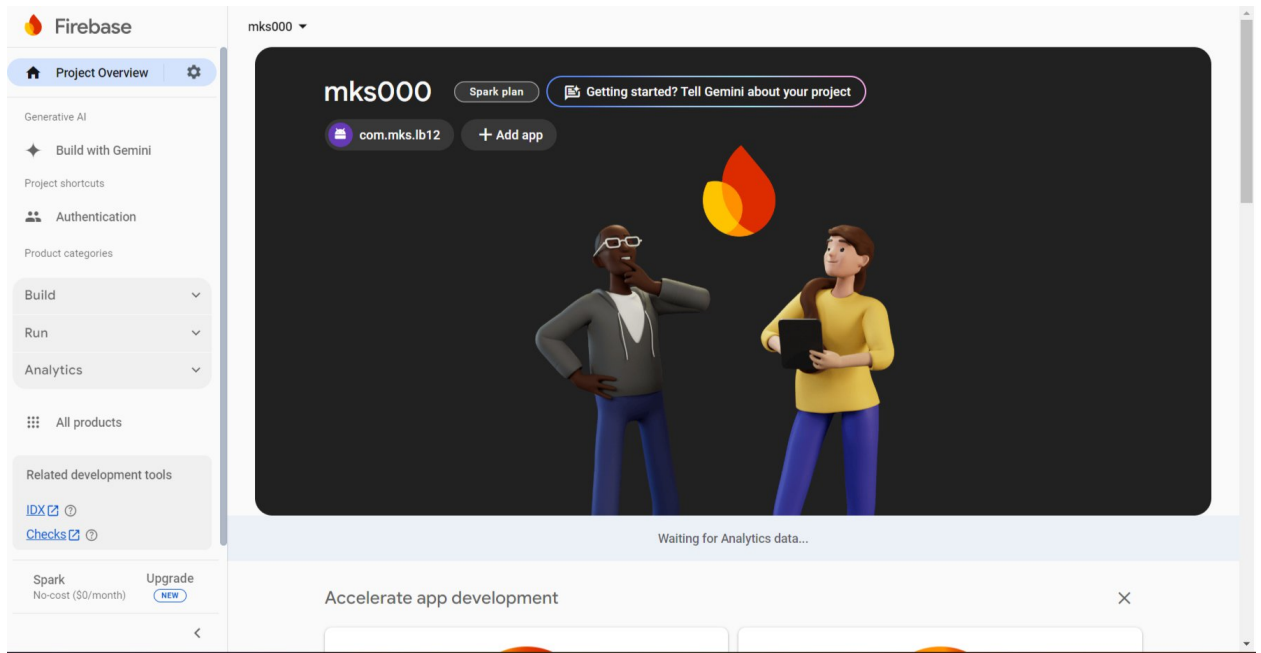
Работа с базой данных Firebase

Выполнили:

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Переходим на сайт <https://firebase.google.com>, создаем проект и в Android Studio подключаем наш Firebase к нашему проекту



activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<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"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintBottom_toBottomOf="parent">

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

    </LinearLayout>

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

MainActivity

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <EditText
        android:id="@+id/etEmailAddress"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_margin="16dp"
        android:hint="Почта"
        android:minHeight="48dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <EditText
        android:id="@+id/etPass"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_margin="16dp"
        android:hint="Пароль"
        android:minHeight="48dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@id/etEmailAddress" />

    <Button
        android:id="@+id/btnLogin"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_margin="16dp"
        android:text="Войти"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@id/etPass" />

    <Button
        android:id="@+id/btnSignUp"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_margin="16dp"
        android:text="Зарегистрироваться"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@id/btnLogin" />

    <TextView
        android:id="@+id/tvRedirectLogin"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_margin="16dp"
        android:text="Перейти к входу"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@id/btnSignUp" />

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

activity_login.xml

```
package com.mks.lb12

import android.content.Intent
import android.os.Bundle
import android.widget.Button
import android.widget.EditText
import android.widget.TextView
import android.widget.Toast
import androidx.activity.enableEdgeToEdge
import androidx.appcompat.app.AppCompatActivity
import androidx.core.view.ViewCompat
import androidx.core.view.WindowInsetsCompat
import com.google.firebase.auth.FirebaseAuth

class MainActivity : AppCompatActivity() {
    private lateinit var etEmail: EditText
    private lateinit var etConfPass: EditText
    private lateinit var etPass: EditText
    private lateinit var btnSignUp: Button
    private lateinit var tvRedirectLogin: TextView
    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
        }
    }
}
```

LoginActivity

```
activity_main.xml activity_login.xml MainActivity.kt LoginActivity.kt HomeActivity.kt activity_home
1 package com.mks.lb12
2
3 import android.content.Intent
4 import android.os.Bundle
5 import android.widget.Button
6 import android.widget.EditText
7 import android.widget.TextView
8 import android.widget.Toast
9 import androidx.appcompat.app.AppCompatActivity
10 import com.google.firebase.auth.FirebaseAuth
11
12 class LoginActivity : AppCompatActivity() {
13     private lateinit var auth: FirebaseAuth
14     private lateinit var etEmail: EditText
15     private lateinit var etPass: EditText
16     private lateinit var btnLogin: Button
17     private lateinit var tvRedirectSignUp: TextView
18
19     override fun onCreate(savedInstanceState: Bundle?) {
20         super.onCreate(savedInstanceState)
21         setContentView(R.layout.activity_login) // Проверьте, что файл разметки существует
22
23         auth = FirebaseAuth.getInstance()
24
25         etEmail = findViewById(R.id.etEmailAddress)
26         etPass = findViewById(R.id.etPass)
27         btnLogin = findViewById(R.id.btnLogin)
28         tvRedirectSignUp = findViewById(R.id.tvRedirectSignUp)
29
30         btnLogin.setOnClickListener {
31             login()
32         }
33     }
34 }
```

activity_home.xml

```
activity_login.xml MainActivity.kt LoginActivity.kt HomeActivity.kt activity_home.xml
1 <?xml version="1.0" encoding="utf-8"?>
2 <RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
3     android:id="@+id/main"
4     android:layout_width="match_parent"
5     android:layout_height="match_parent">
6
7     <TextView
8         android:id="@+id/tvWelcome"
9         android:layout_width="wrap_content"
10        android:layout_height="wrap_content"
11        android:textSize="20sp"
12        android:layout_centerInParent="true"
13        android:padding="16dp" />
14
15     <Button
16         android:id="@+id/btnLogout"
17         android:layout_width="wrap_content"
18         android:layout_height="wrap_content"
19         android:text="Выйти"
20         android:layout_below="@id/tvWelcome"
21         android:layout_centerHorizontal="true"
22         android:layout_marginTop="16dp" />
23 </RelativeLayout>
24
```

HomeActivity

```
<?> activity_main.xml    <?> activity_login.xml    MainActivity.kt    LoginActivity.kt    HomeActivity.kt    <?> activity_home
1      package com.mks.lb12
2
3      import android.content.Intent
4      import android.os.Bundle
5      import android.widget.Button
6      import android.widget.TextView
7      import android.widget.Toast
8      import androidx.appcompat.app.AppCompatActivity
9      import com.google.firebase.auth.FirebaseAuth
10
11  <?> class HomeActivity : AppCompatActivity() {
12      private lateinit var auth: FirebaseAuth
13      private lateinit var tvWelcome: TextView
14      private lateinit var btnLogout: Button
15
16      override fun onCreate(savedInstanceState: Bundle?) {
17          super.onCreate(savedInstanceState)
18          setContentView(R.layout.activity_home)
19
20          auth = FirebaseAuth.getInstance()
21
22          tvWelcome = findViewById(R.id.tvWelcome)
23          btnLogout = findViewById(R.id.btnLogout)
24
25          val currentUser = auth.currentUser
26          if (currentUser != null) {
27              tvWelcome.text = "Добро пожаловать...${currentUser.email}!"
28          } else {
29              startActivity(Intent(packageContext, LoginActivity::class.java))
30              finish()
31          }
32      }
```

Результат

