

# Android Studio'yu Tanıyalım

Android Studio, Android uygulamalarının geliştirildiđi, üst seviye özelliklere sahip ve Google tarafından da önerilen resmi programlama aracıdır.

# Android Studio'yu Tanıyalım

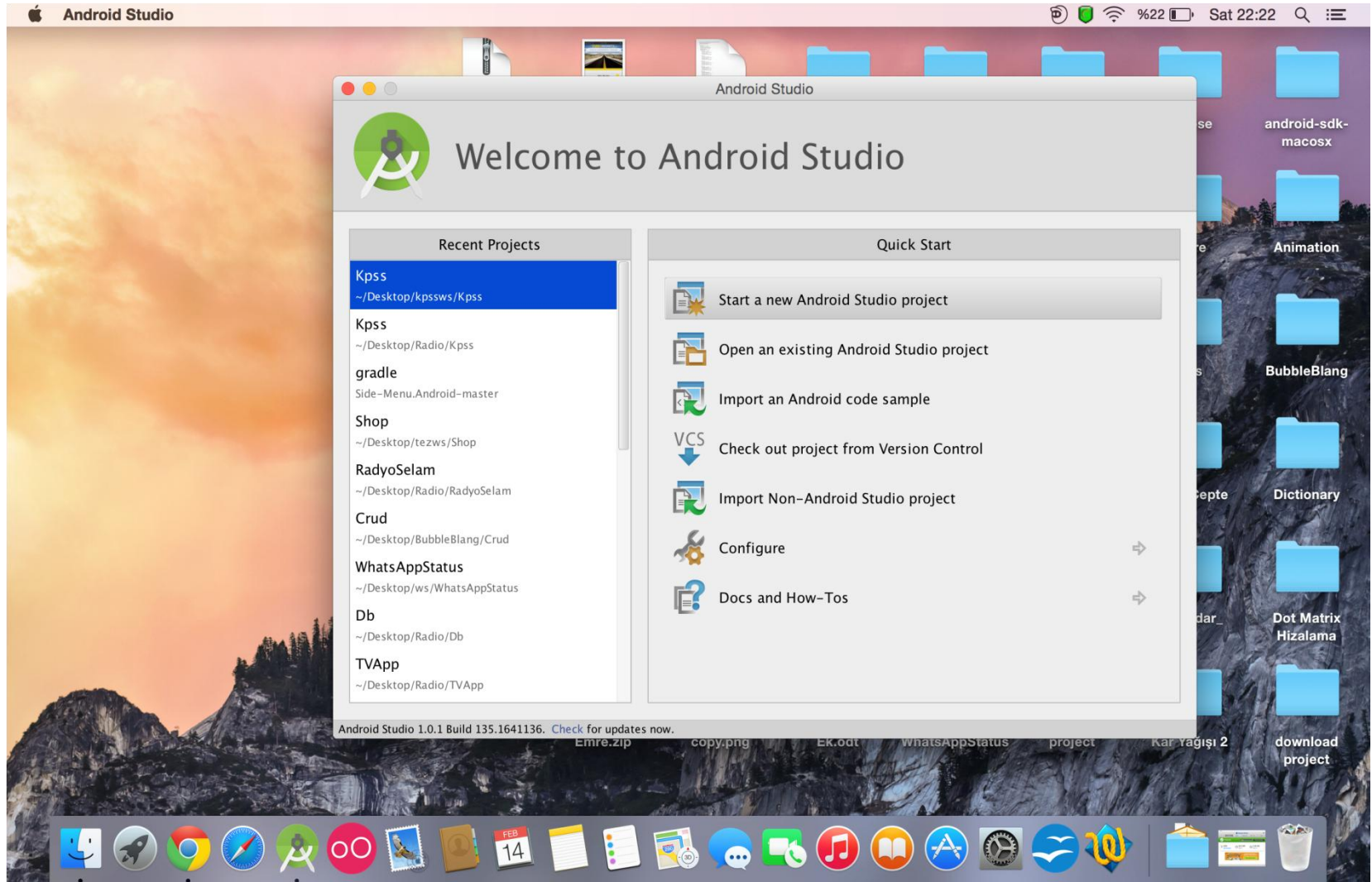
Android Studio'nun kod geliştiricilere sunduđu temel özellikler şunlardır:

- Gradle tabanlı, esnek proje inşa sistemi.
- Farklı özellik ve sürümlere göre çoklu APK çıktısı.
- Temel proje şablonlarıyla hızlı ve kolay proje üretimi.

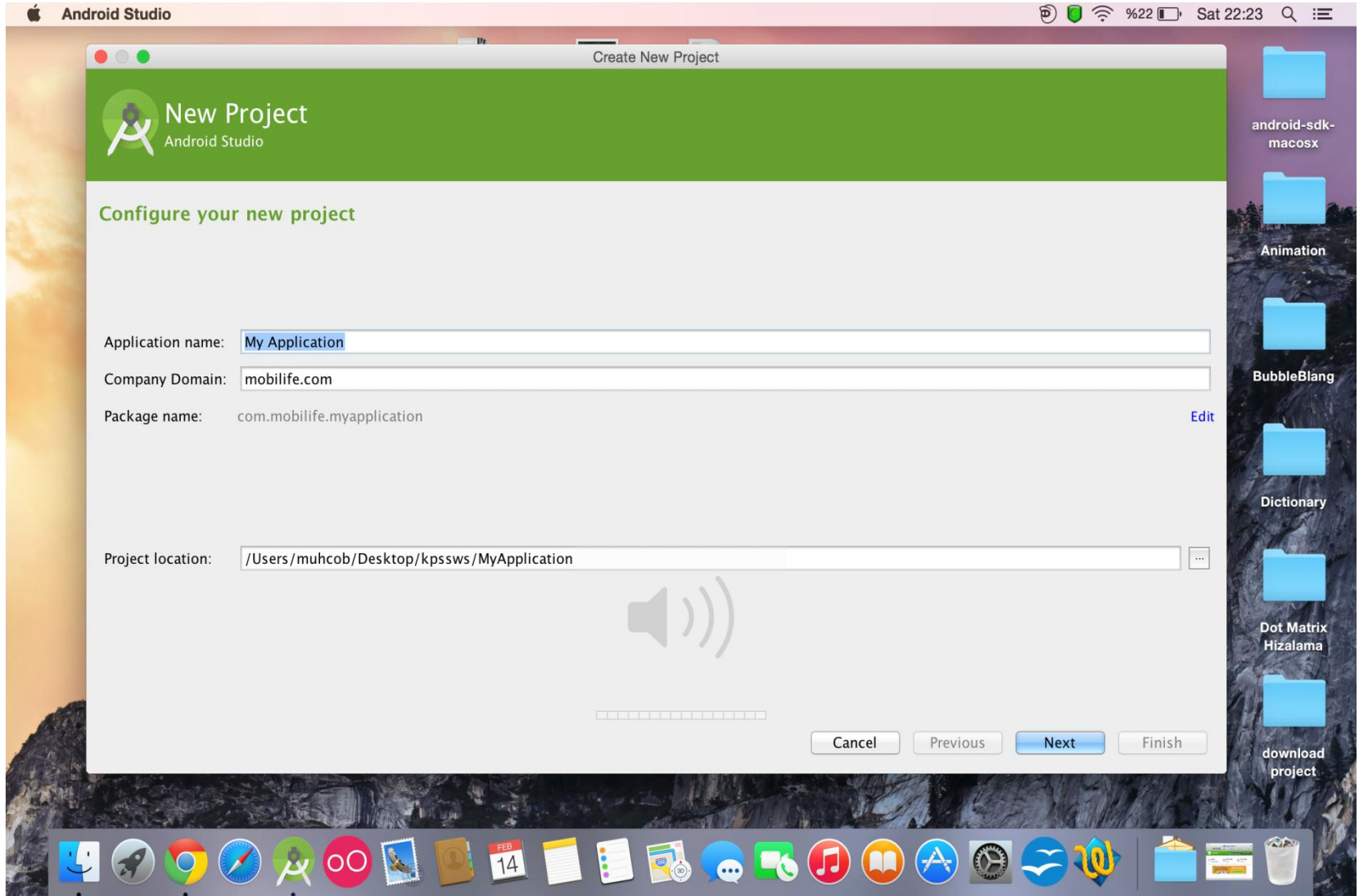
# Android Studio'yu Tanıyalım

- Ekran tasarımlarını kolaylaştıran sürükle-bırak özellikli zengin editör.
- Uygulamanın performansı, kullanılabilirliği, farklı sürümlerde çalışabilirliğinin kontrol edilebileceği test araçları.
- Kolay ve güvenli APK imzalanması.
- Ek uğraşa gerek kalmadan Google hizmetlerini uygulamaya ekleyebilme.

# Android Studio Yeni Proje Oluřturma

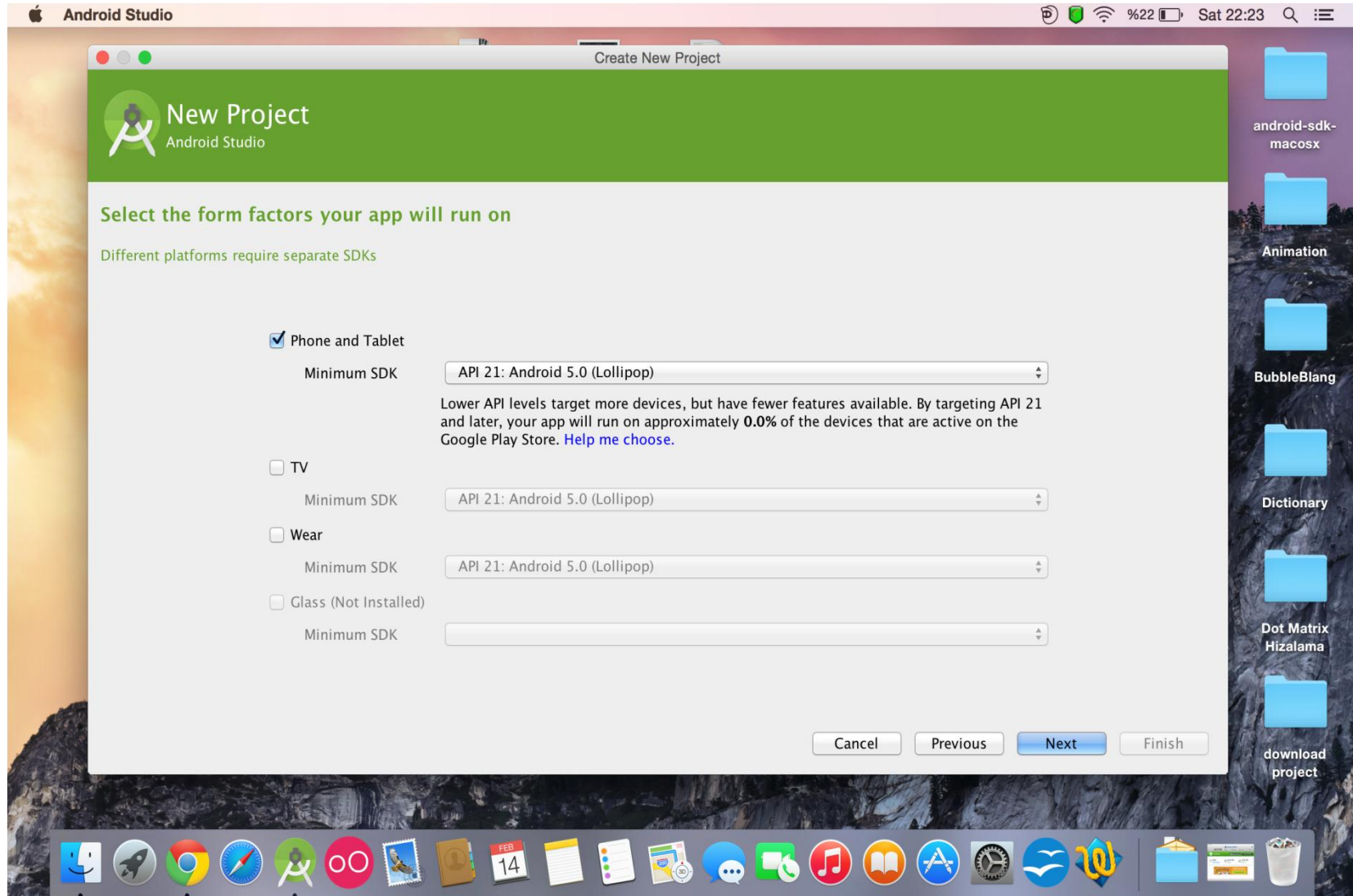


# Android Studio Yeni Proje Oluřturma

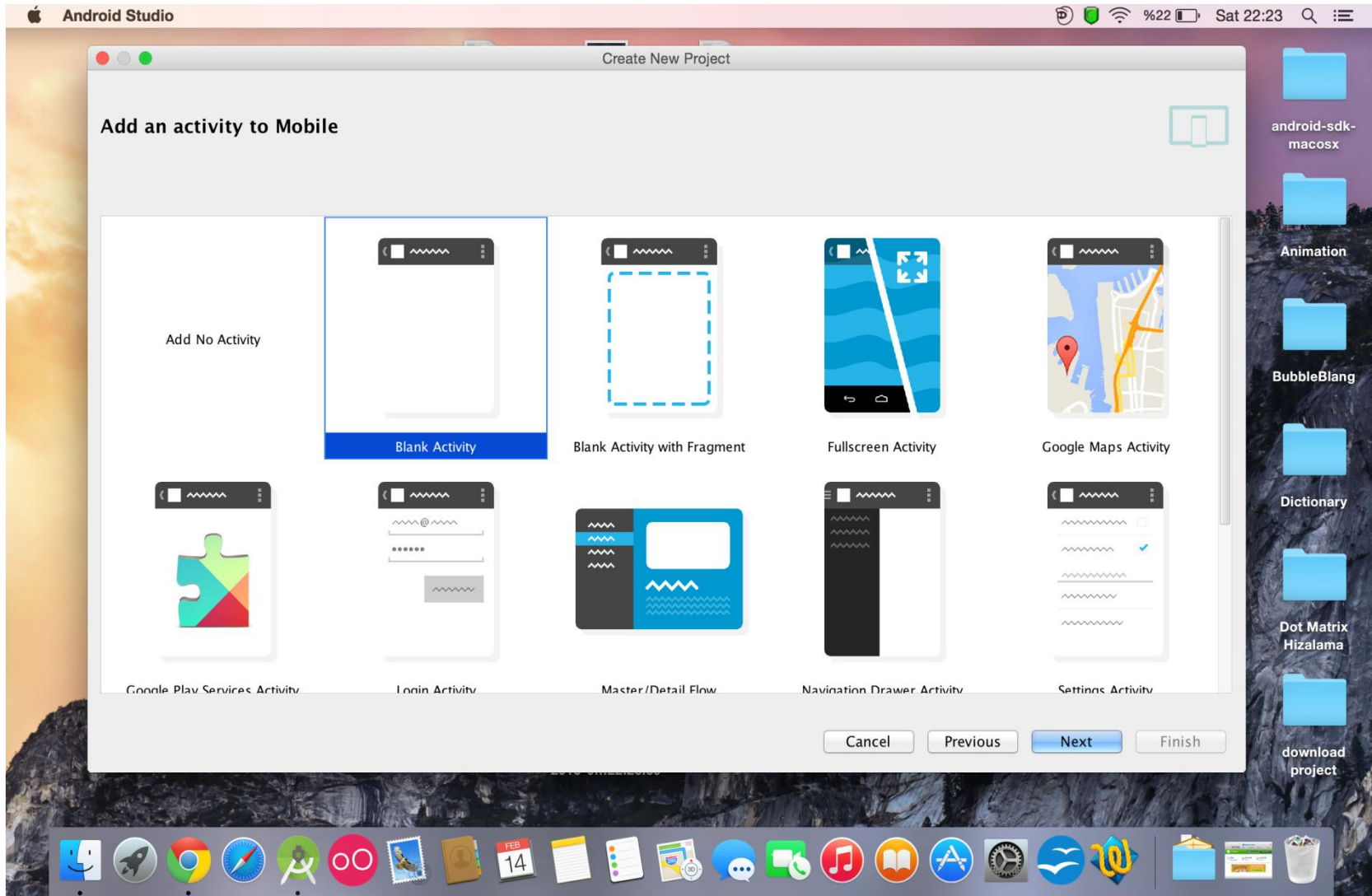




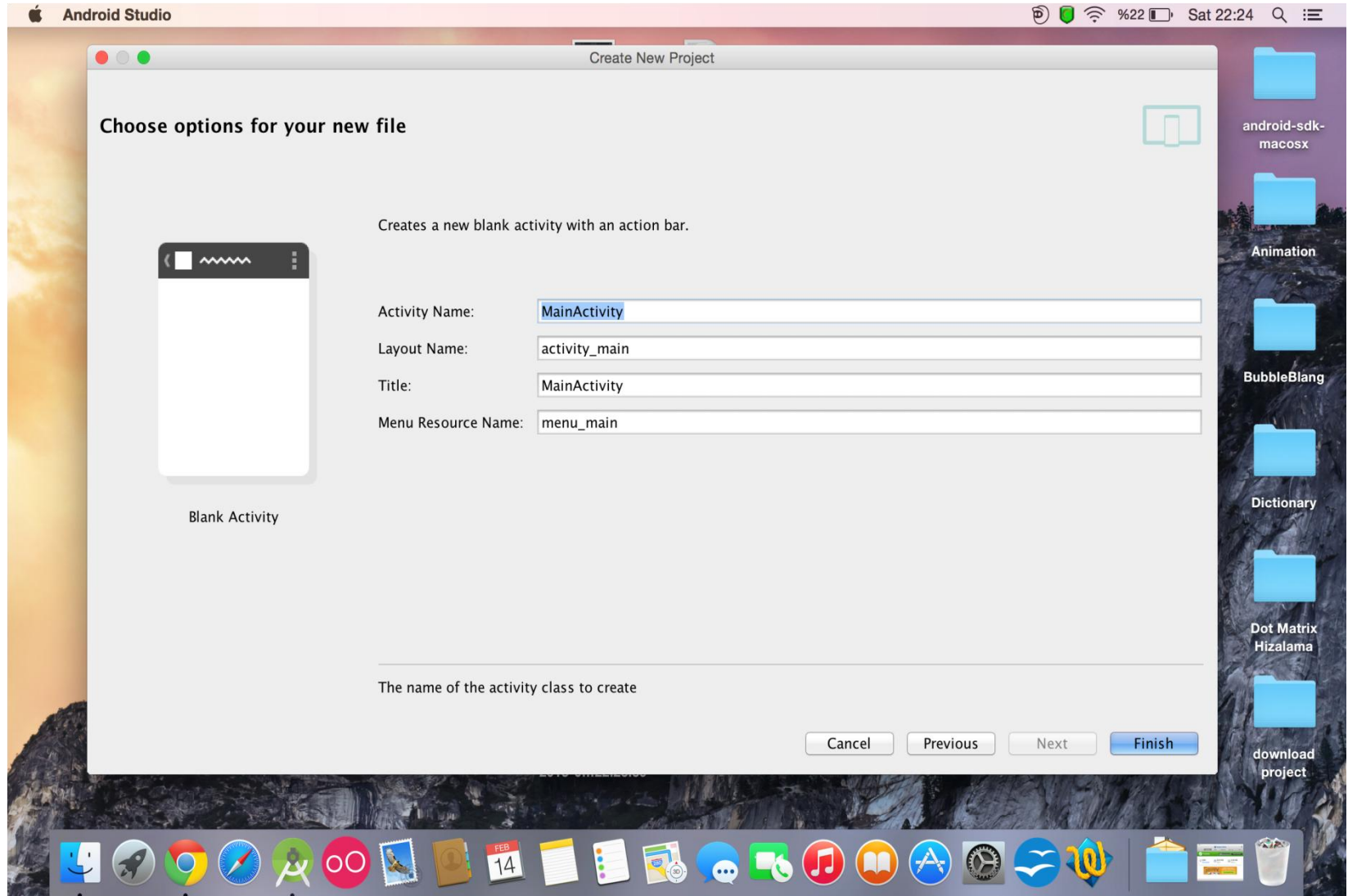
# Android Studio Yeni Proje Oluřturma



# Android Studio Yeni Proje Oluşturma

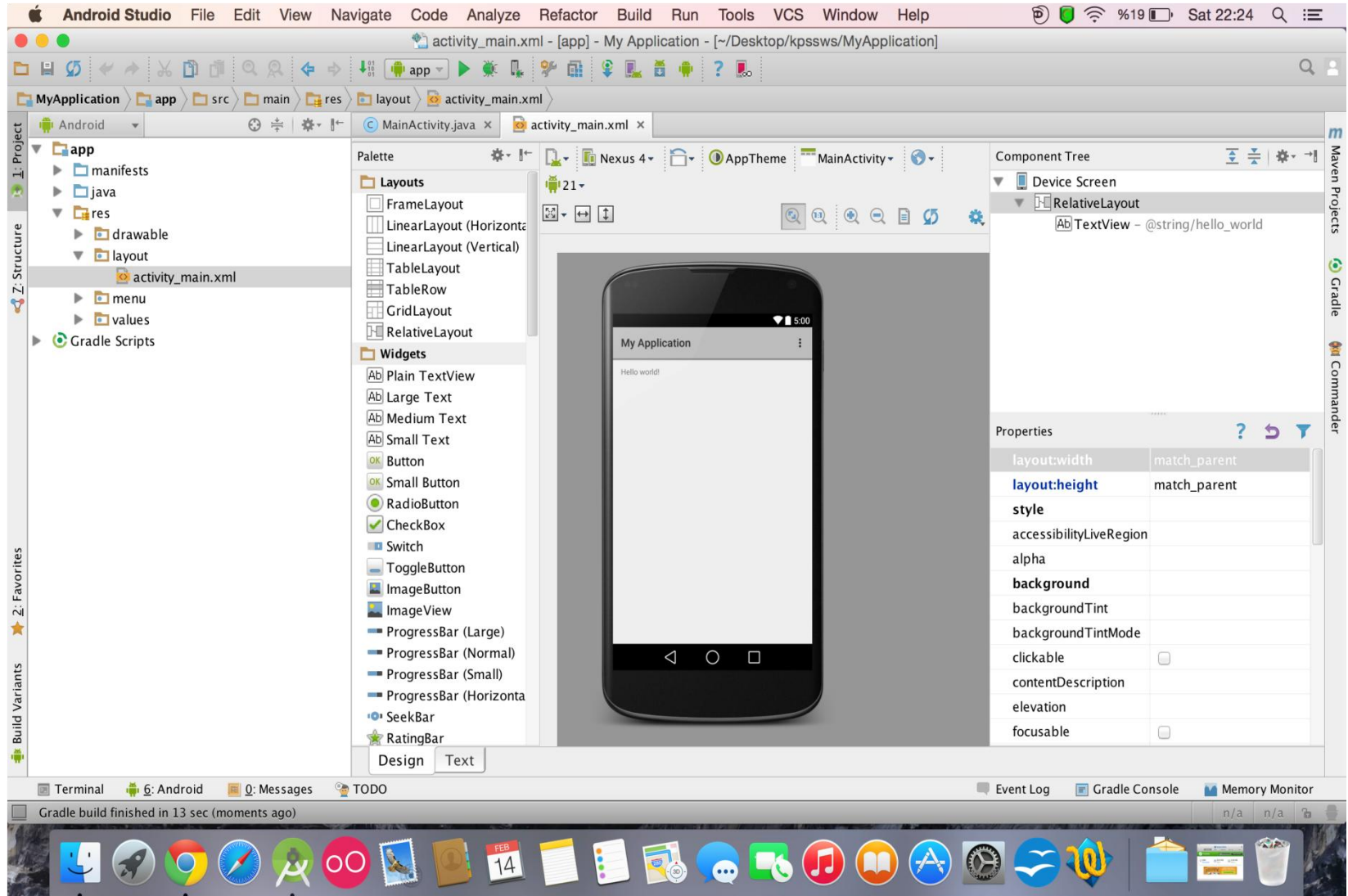


# Android Studio Yeni Proje Oluřturma

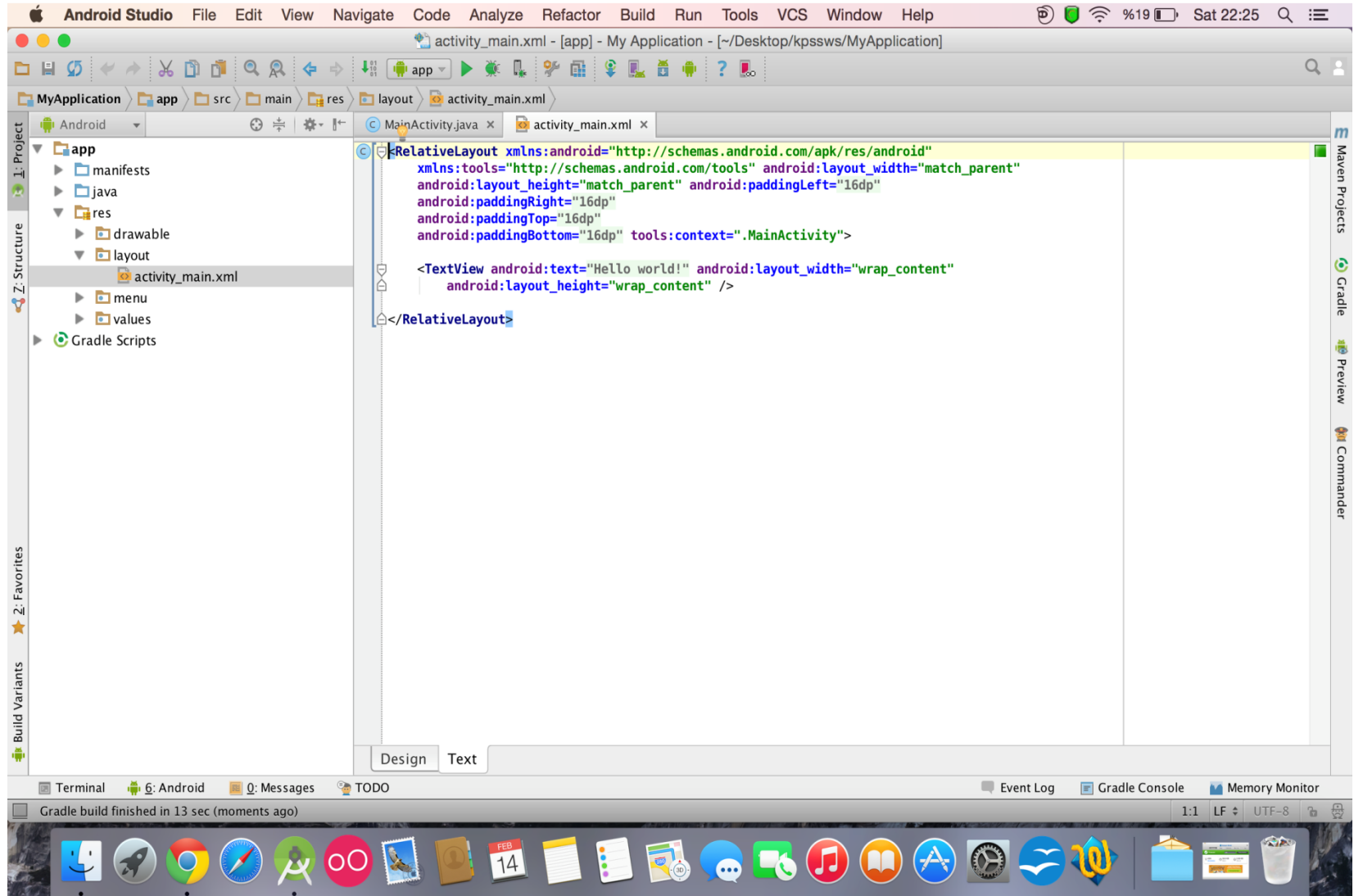




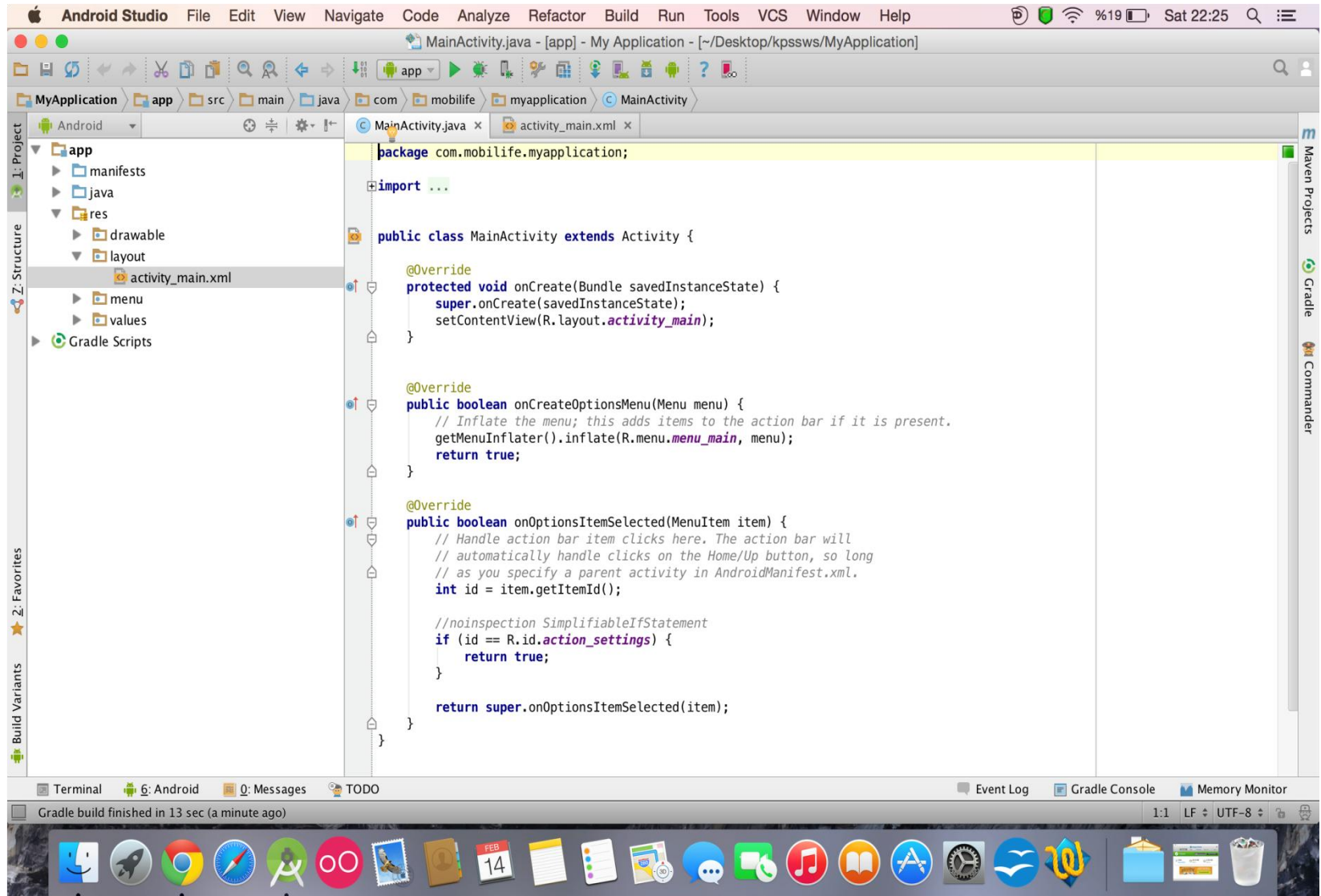
# Android Studio Yeni Proje Oluşturma



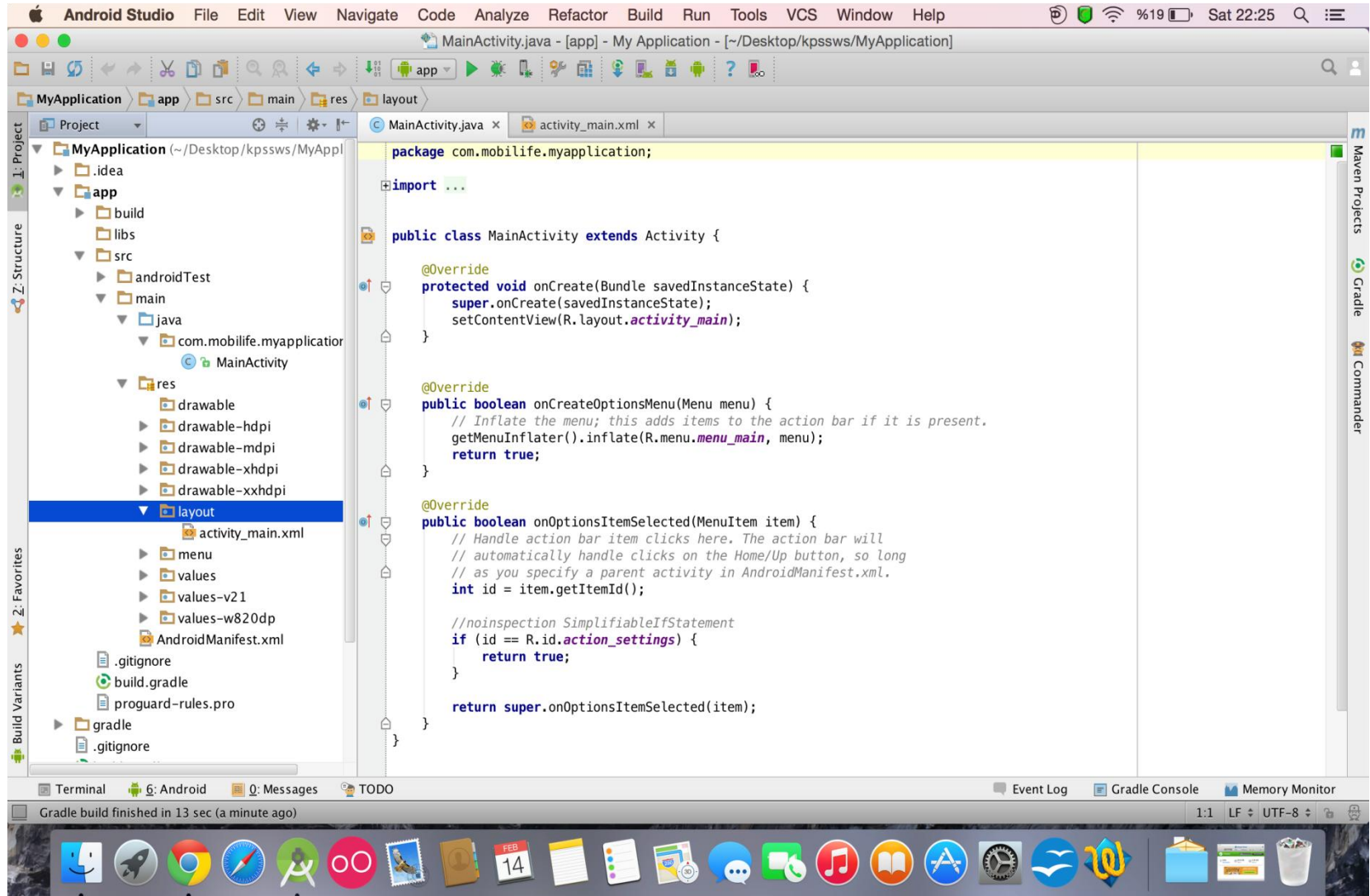
# Android Studio Yeni Proje Oluşturma



# Android Studio Yeni Proje Oluşturma

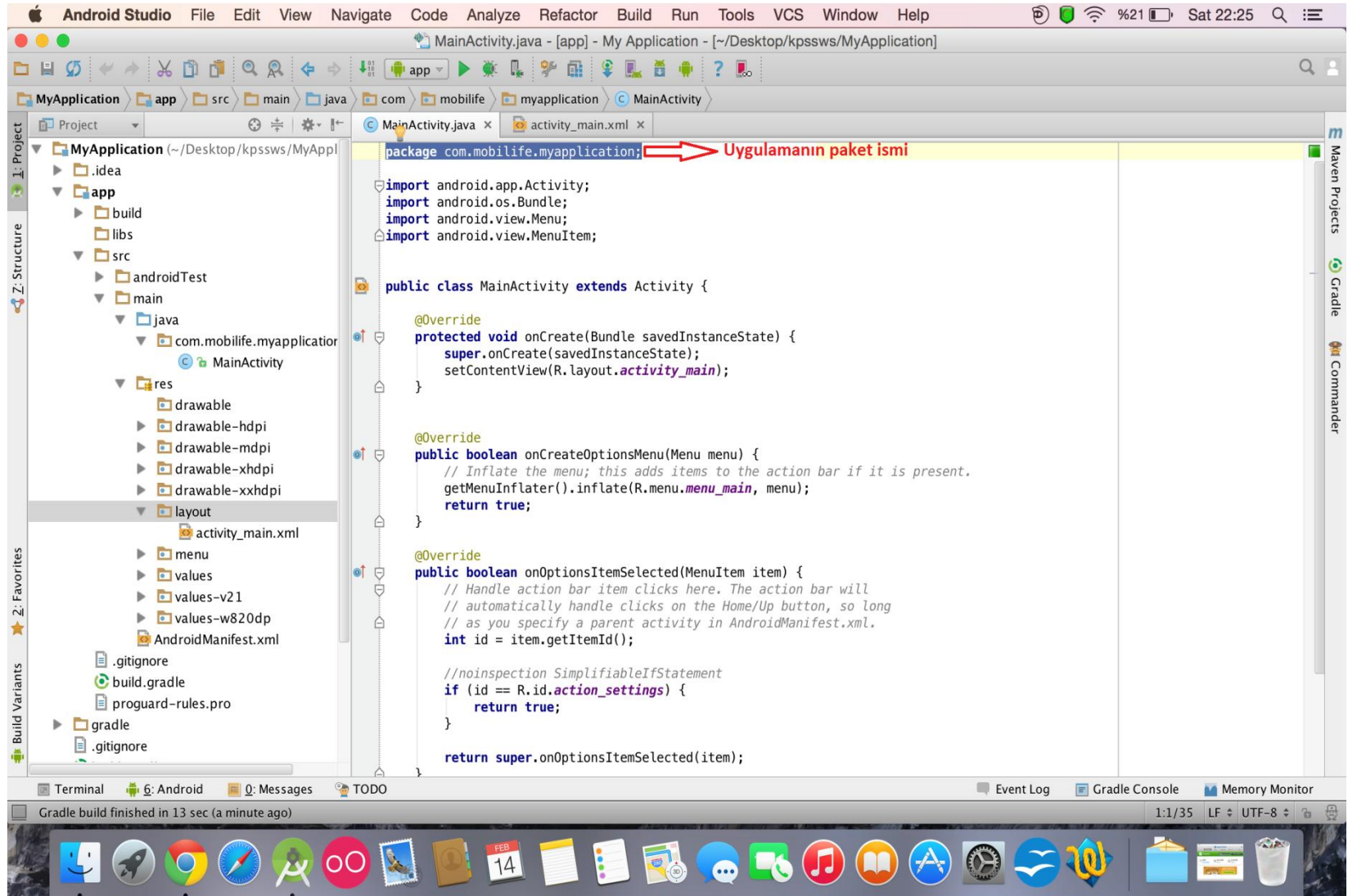


# Android Studio Yeni Proje Oluşturma





# Android Studio Yeni Proje Oluřturma



The screenshot displays the Android Studio interface for a new project. The package name `com.mobillife.myapplication` is highlighted in yellow, with a red arrow pointing to it and the text "Uygulamanın paket ismi" (Application's package name). The code editor shows the `MainActivity.java` file with the following code:

```
package com.mobillife.myapplication;

import android.app.Activity;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;

public class MainActivity extends Activity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }

    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        // Inflate the menu; this adds items to the action bar if it is present.
        getMenuInflater().inflate(R.menu.menu_main, menu);
        return true;
    }

    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        // Handle action bar item clicks here. The action bar will
        // automatically handle clicks on the Home/Up button, so long
        // as you specify a parent activity in AndroidManifest.xml.
        int id = item.getItemId();

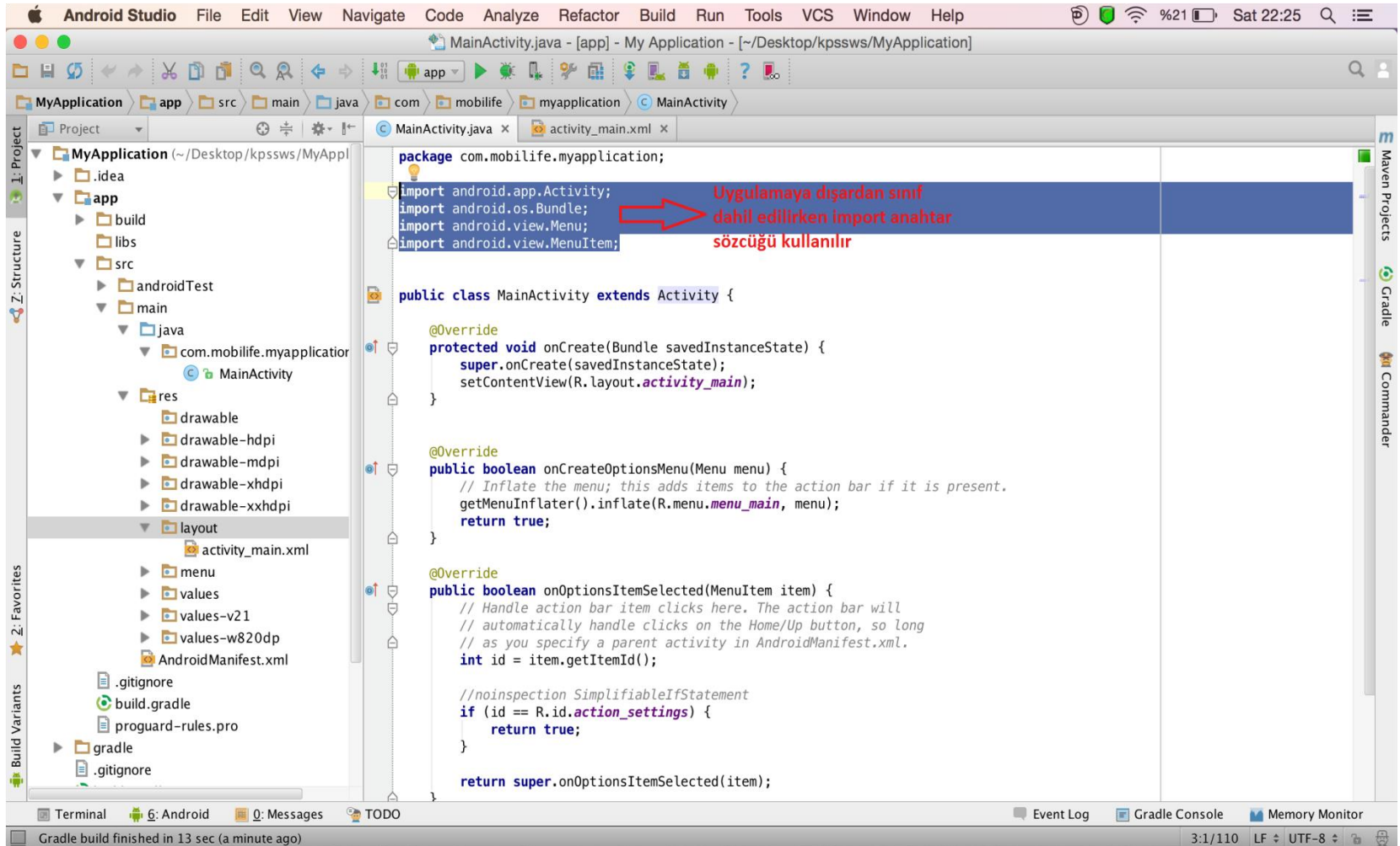
        //noinspection SimplifiableIfStatement
        if (id == R.id.action_settings) {
            return true;
        }

        return super.onOptionsItemSelected(item);
    }
}
```

The interface also shows the Project Structure view on the left, displaying the project hierarchy including `MyApplication`, `app`, `src`, `main`, `java`, `com.mobillife.myapplication`, `MainActivity`, `res`, `drawable`, `layout`, `activity_main.xml`, `menu`, `values`, `values-v21`, `values-w820dp`, `AndroidManifest.xml`, `.gitignore`, `build.gradle`, `proguard-rules.pro`, and `gradle`.



# Android Studio Yeni Proje Oluřturma



The screenshot shows the Android Studio IDE with the MainActivity.java file open. The code is as follows:

```
package com.mobilife.myapplication;

import android.app.Activity;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;

public class MainActivity extends Activity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }

    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        // Inflate the menu; this adds items to the action bar if it is present.
        getMenuInflater().inflate(R.menu.menu_main, menu);
        return true;
    }

    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        // Handle action bar item clicks here. The action bar will
        // automatically handle clicks on the Home/Up button, so long
        // as you specify a parent activity in AndroidManifest.xml.
        int id = item.getItemId();

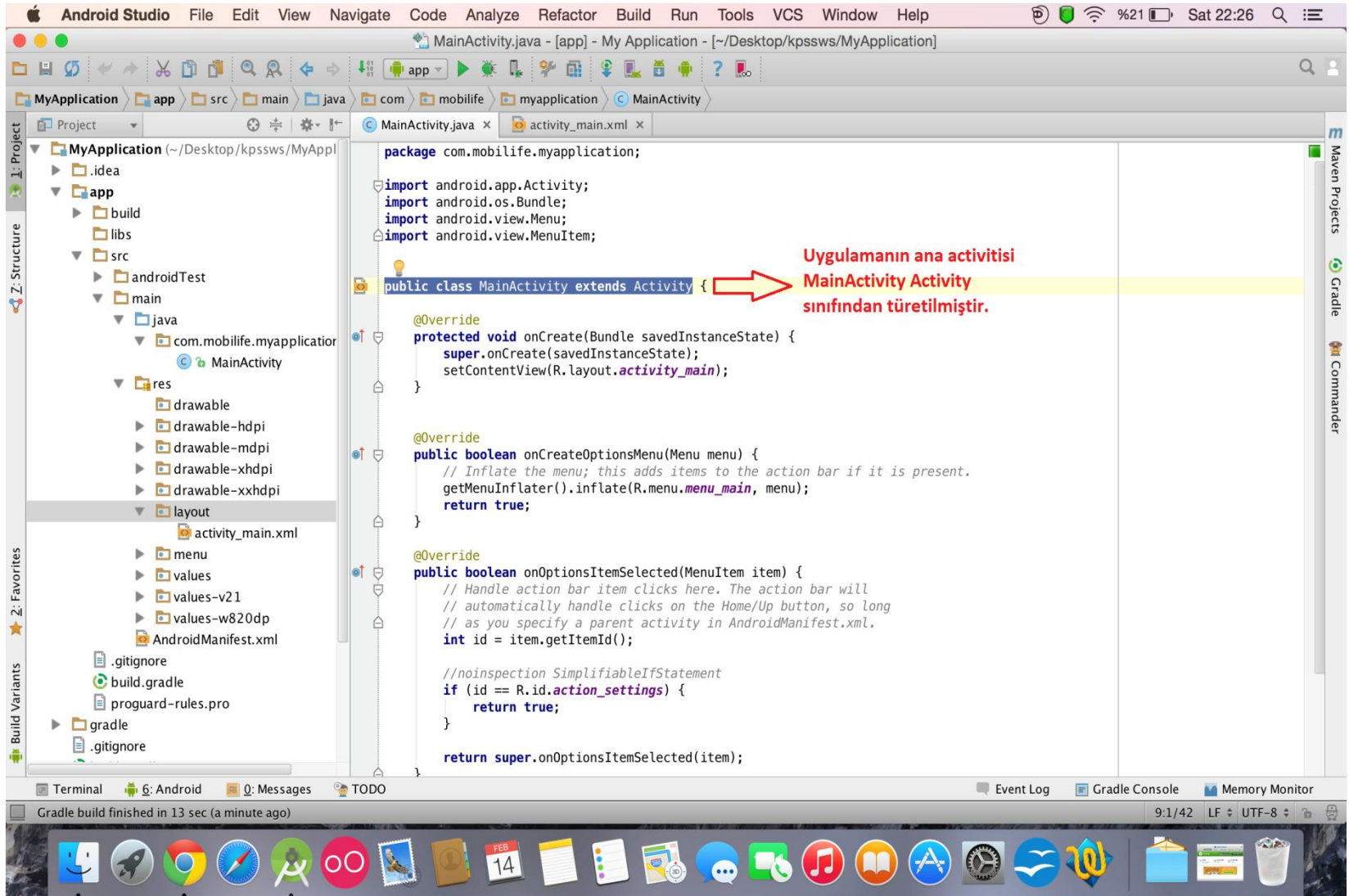
        //noinspection SimplifiableIfStatement
        if (id == R.id.action_settings) {
            return true;
        }

        return super.onOptionsItemSelected(item);
    }
}
```

A red arrow points to the import statements with the following text: "Uygulamaya dışardan sınıf dahil edilirken import anahtar sözcüğü kullanılır".

The interface also shows the Project Structure view on the left, the Maven Projects view on the right, and the Gradle Console at the bottom. The status bar at the bottom indicates "Gradle build finished in 13 sec (a minute ago)" and "3:1/110 LF UTF-8".

# Android Studio Yeni Proje Oluřturma



The screenshot shows the Android Studio interface with the MainActivity.java file open. The code is as follows:

```
package com.mobilife.myapplication;

import android.app.Activity;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;

public class MainActivity extends Activity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }

    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        // Inflate the menu; this adds items to the action bar if it is present.
        getMenuInflater().inflate(R.menu.menu_main, menu);
        return true;
    }

    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        // Handle action bar item clicks here. The action bar will
        // automatically handle clicks on the Home/Up button, so long
        // as you specify a parent activity in AndroidManifest.xml.
        int id = item.getItemId();

        //noinspection SimplifiableIfStatement
        if (id == R.id.action_settings) {
            return true;
        }

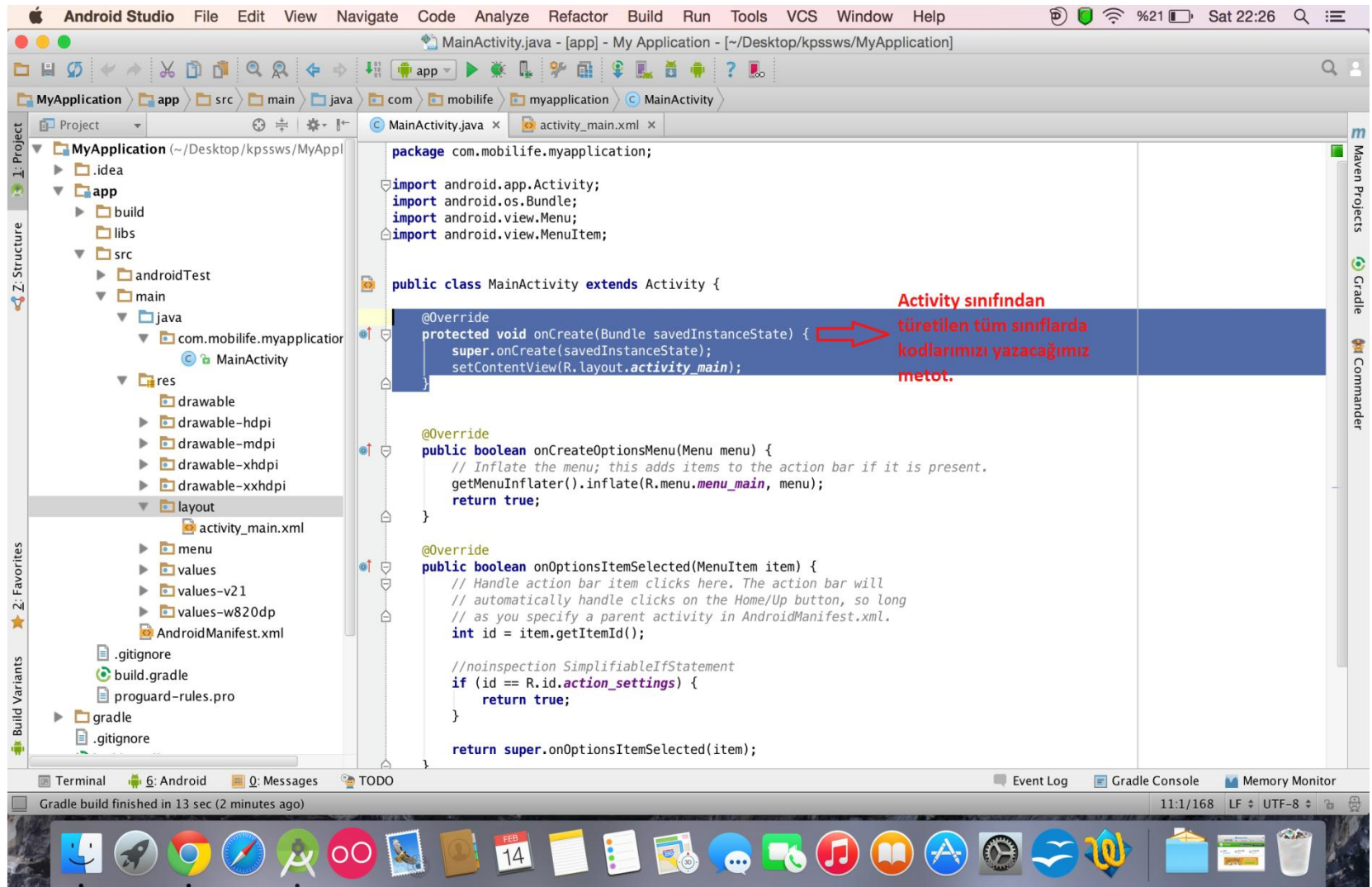
        return super.onOptionsItemSelected(item);
    }
}
```

Uygulamanın ana aktivitesi MainActivity Activity sınıfından türetilmiştir.

Terminal: Gradle build finished in 13 sec (a minute ago)

System tray: 9:14/2 LF UTF-8

# Android Studio Yeni Proje Oluřturma



The screenshot shows the Android Studio interface with the MainActivity.java file open. The code is as follows:

```
package com.mobilife.myapplication;

import android.app.Activity;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;

public class MainActivity extends Activity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }

    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        // Inflate the menu; this adds items to the action bar if it is present.
        getMenuInflater().inflate(R.menu.menu_main, menu);
        return true;
    }

    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        // Handle action bar item clicks here. The action bar will
        // automatically handle clicks on the Home/Up button, so long
        // as you specify a parent activity in AndroidManifest.xml.
        int id = item.getItemId();

        //noinspection SimplifiableIfStatement
        if (id == R.id.action_settings) {
            return true;
        }

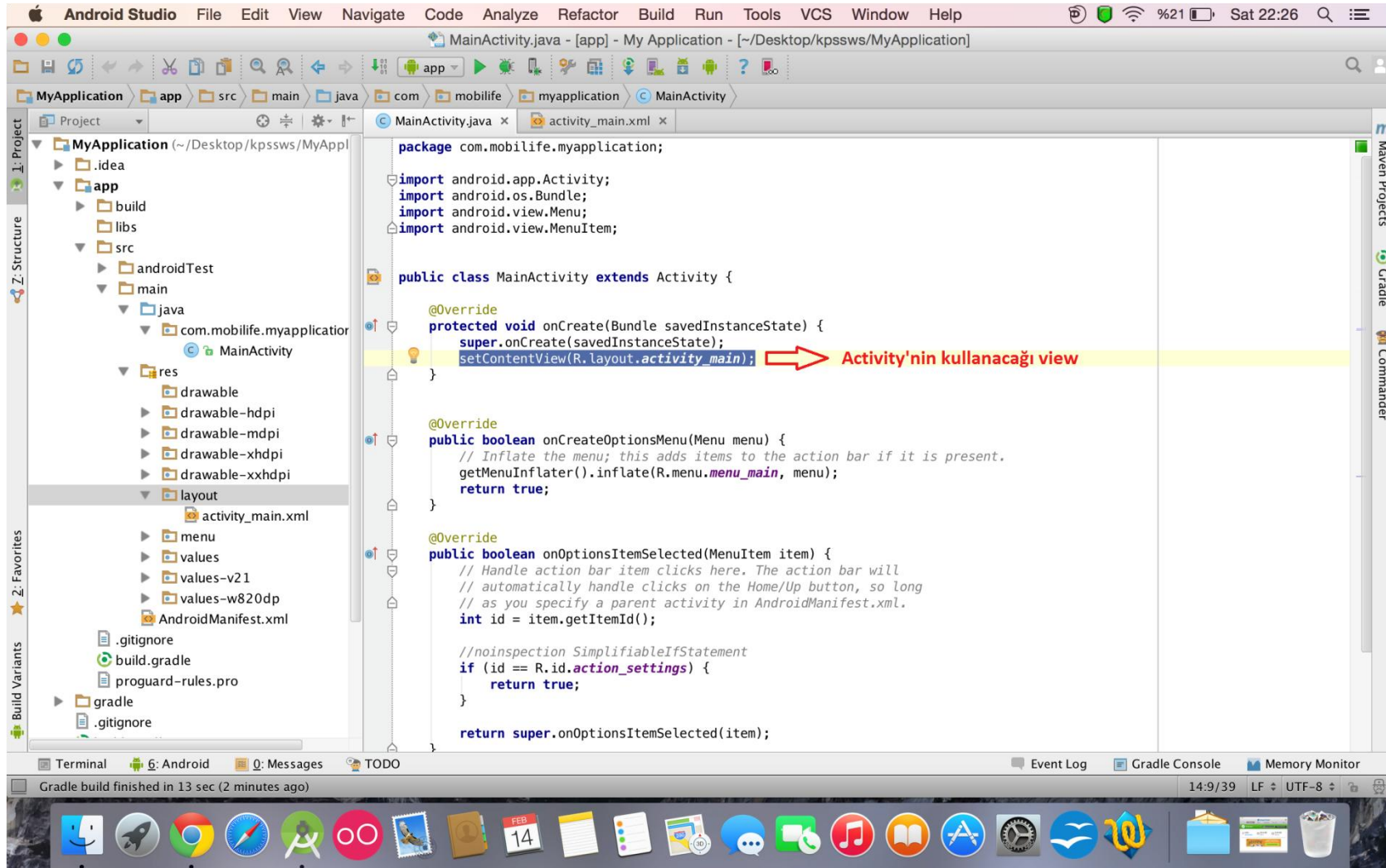
        return super.onOptionsItemSelected(item);
    }
}
```

A red arrow points to the `onCreate` method, which is highlighted in blue. To the right of the arrow, there is a red text box with the following text:

Activity sınıfından türetilen tüm sınıflarda kodlarımızı yazacağımız metot.



# Android Studio Yeni Proje Oluşturma



The screenshot displays the Android Studio interface. The Project view on the left shows the project structure for 'MyApplication', including the 'src/main/java/com.mobillife.myapplication' directory where 'MainActivity.java' is located. The main editor shows the following code:

```
package com.mobillife.myapplication;

import android.app.Activity;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;

public class MainActivity extends Activity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }

    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        // Inflate the menu; this adds items to the action bar if it is present.
        getMenuInflater().inflate(R.menu.menu_main, menu);
        return true;
    }

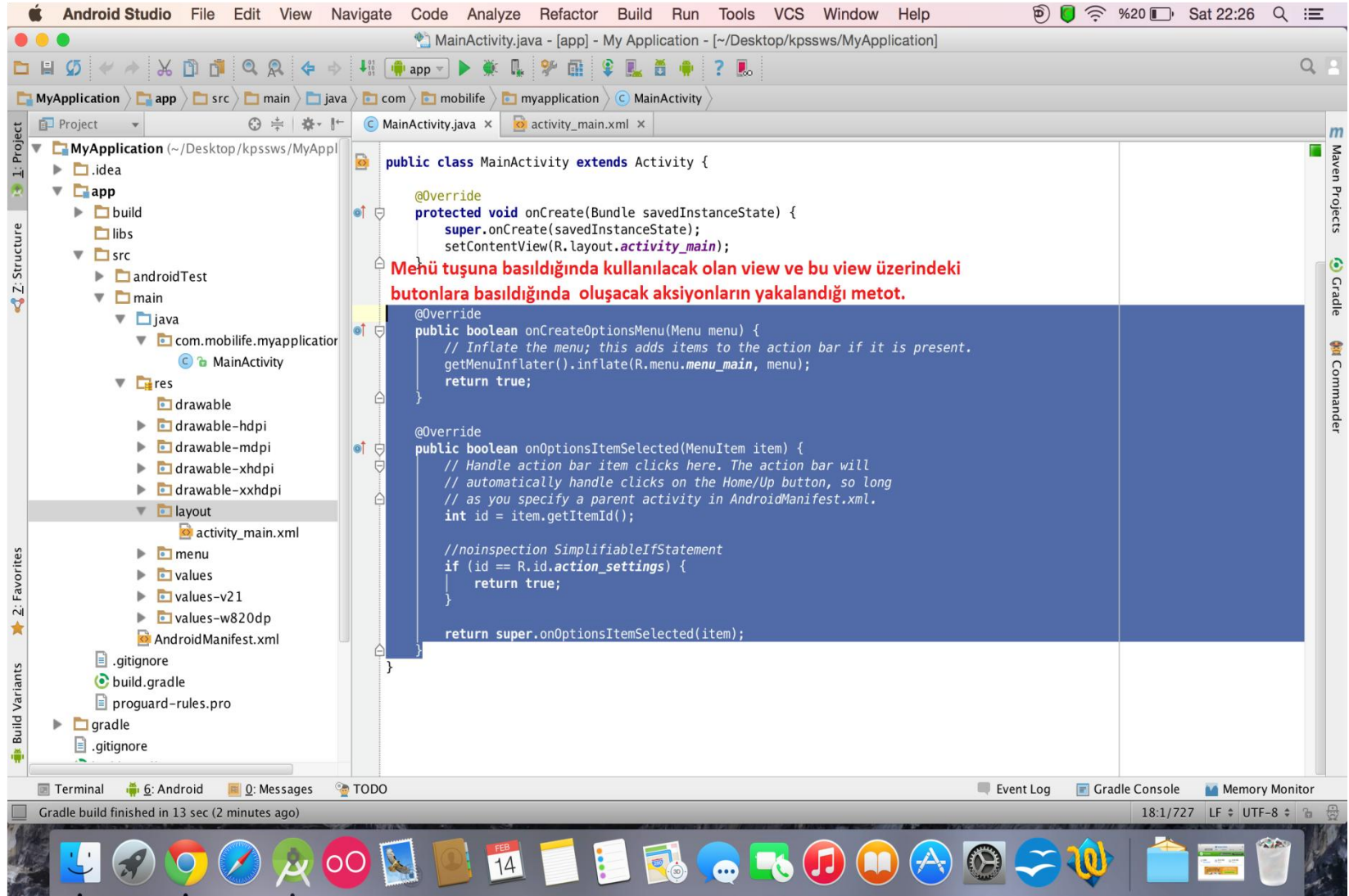
    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        // Handle action bar item clicks here. The action bar will
        // automatically handle clicks on the Home/Up button, so long
        // as you specify a parent activity in AndroidManifest.xml.
        int id = item.getItemId();

        //noinspection SimplifiableIfStatement
        if (id == R.id.action_settings) {
            return true;
        }

        return super.onOptionsItemSelected(item);
    }
}
```

A red arrow points to the `setContentView(R.layout.activity_main);` line in the `onCreate` method, with the text "Activity'nin kullanacağı view" (View used by the Activity) next to it. The bottom status bar shows "Gradle build finished in 13 sec (2 minutes ago)".

# Android Studio Yeni Proje Oluřturma

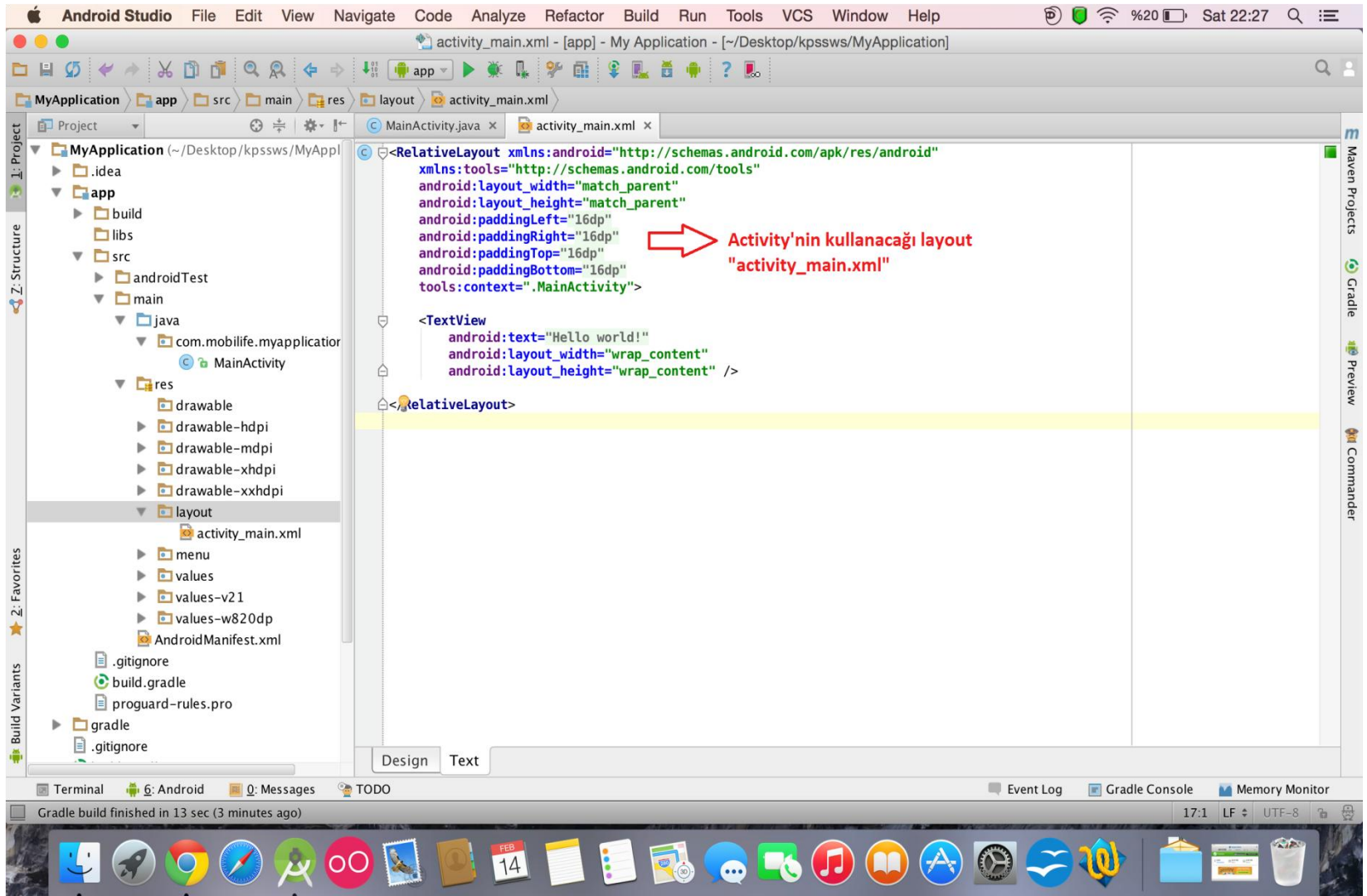


**Menü tuřuna basıldığında kullanılacak olan view ve bu view üzerindeki butonlara basıldığında oluřacak aksiyonların yakalandığı metot.**

```
public class MainActivity extends Activity {  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_main);  
    }  
  
    @Override  
    public boolean onCreateOptionsMenu(Menu menu) {  
        // Inflate the menu; this adds items to the action bar if it is present.  
        getMenuInflater().inflate(R.menu.menu_main, menu);  
        return true;  
    }  
  
    @Override  
    public boolean onOptionsItemSelected(MenuItem item) {  
        // Handle action bar item clicks here. The action bar will  
        // automatically handle clicks on the Home/Up button, so long  
        // as you specify a parent activity in AndroidManifest.xml.  
        int id = item.getItemId();  
  
        //noinspection SimplifiableIfStatement  
        if (id == R.id.action_settings) {  
            return true;  
        }  
  
        return super.onOptionsItemSelected(item);  
    }  
}
```



# Android Studio Yeni Proje Oluřturma



The screenshot shows the Android Studio interface with the following details:

- Toolbar:** Activity, Run, Stop, Refresh, Undo, Redo, Copy, Paste, Find, Replace, Zoom In, Zoom Out, Close, and Help icons.
- Project Structure:** MyApplication (~/Desktop/kpssws/MyAppl) > app > src > main > res > layout > activity\_main.xml
- Main Editor:** activity\_main.xml file content:

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:paddingLeft="16dp"
    android:paddingRight="16dp"
    android:paddingTop="16dp"
    android:paddingBottom="16dp"
    tools:context=".MainActivity">

    <TextView
        android:text="Hello world!"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content" />

</RelativeLayout>
```
- Annotations:** A red arrow points to the <RelativeLayout> tag with the text "Activity'nin kullanacađı layout 'activity\_main.xml'".
- Bottom Panel:** Terminal, Android, Messages, TODO, Event Log, Gradle Console, Memory Monitor.
- Status Bar:** Gradle build finished in 13 sec (3 minutes ago), 17:1, LF, UTF-8.



# Android Studio Yeni Proje Oluşturma

The screenshot shows the Android Studio interface for a new project. The main editor displays the XML code for the activity\_main.xml file:

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:paddingLeft="16dp"
    android:paddingRight="16dp"
    android:paddingTop="16dp"
    android:paddingBottom="16dp"
    tools:context=".MainActivity">

    <TextView
        android:text="Hello world!"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content" />

</RelativeLayout>
```

The left sidebar shows the project structure with the 'values' folder selected. The bottom status bar shows 'Gradle build finished in 13 sec (3 minutes ago)'.

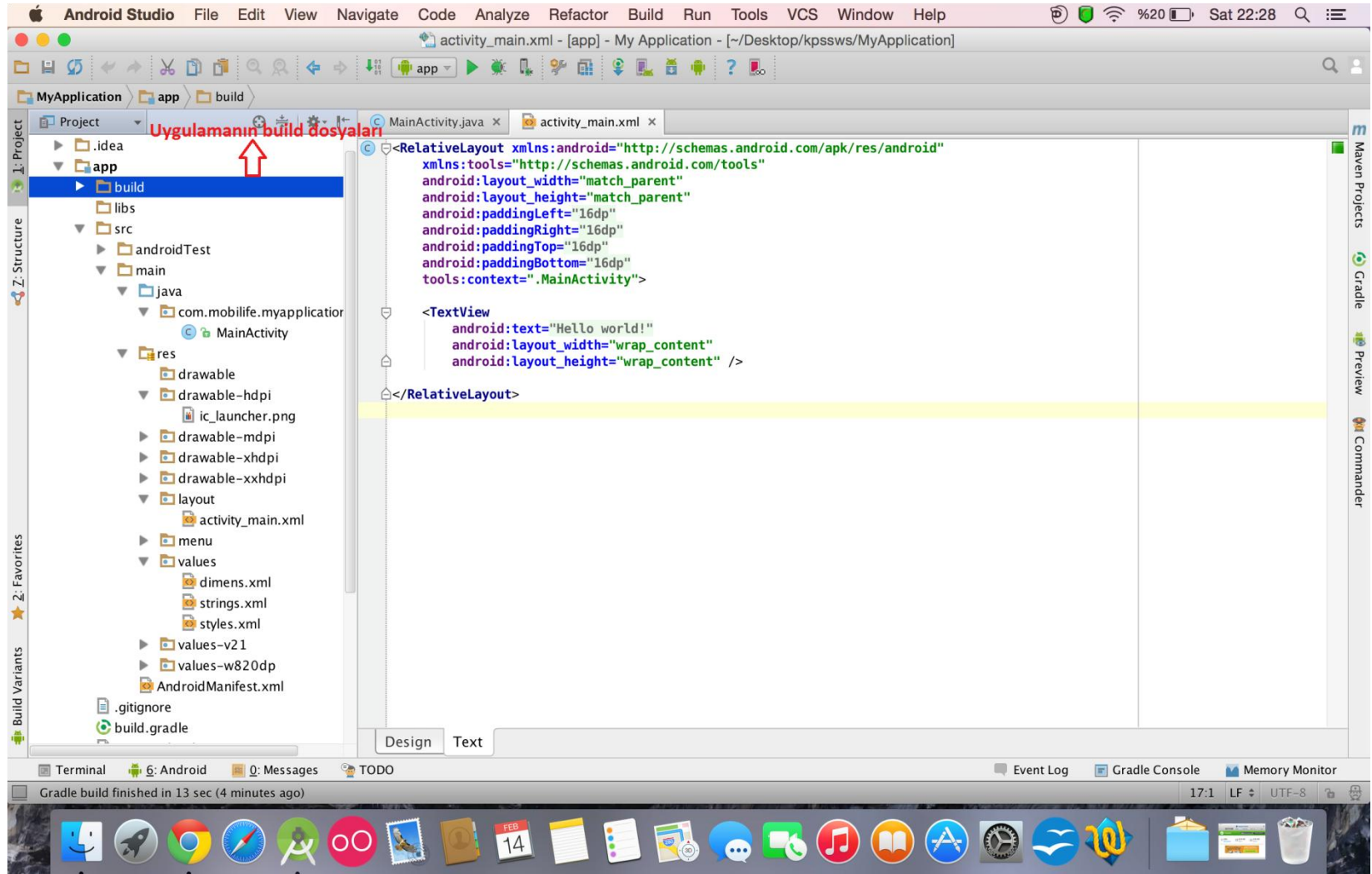
**dimens.xml-> Uygulama içerisinde belirtilecek olan boyut(yükseklik, genişlik, ...) değerlerinin tutulduğu xml dosyası**

**strings.xml-> Uygulama içerisinde kullanılacak string değerlerin tutulduğu xml dosyası**

**style.xml-> Uygulamanın kullandığı tema ve tasarım öğelerinin tanımlandığı xml dosyası**



# Android Studio Yeni Proje Oluřturma



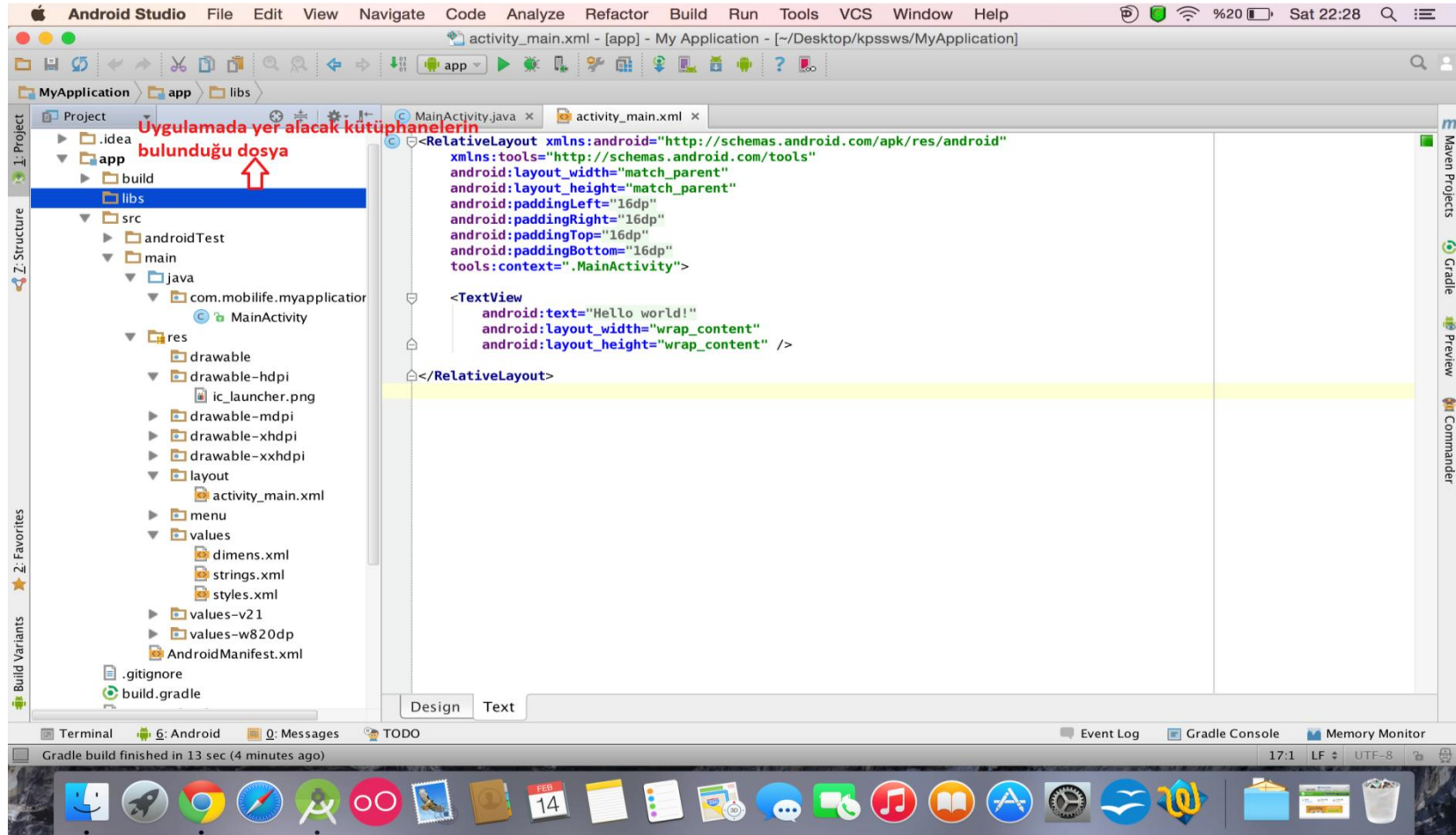
The screenshot displays the Android Studio interface for a new project named 'MyApplication'. The 'Project' view on the left shows the file structure, with the 'build' folder highlighted. A red arrow points to the 'build' folder with the text 'Uygulamanın build dosyaları' (Application's build files). The main editor shows the XML code for 'activity\_main.xml' in the 'Text' tab. The code defines a 'RelativeLayout' containing a 'TextView' with the text 'Hello world!'. The 'TextView' has attributes for layout width and height set to 'wrap\_content'. The 'RelativeLayout' has attributes for layout width and height set to 'match\_parent', and padding attributes for all sides set to '16dp'. The context is set to '.MainActivity'.

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:paddingLeft="16dp"
    android:paddingRight="16dp"
    android:paddingTop="16dp"
    android:paddingBottom="16dp"
    tools:context=".MainActivity">

    <TextView
        android:text="Hello world!"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content" />

</RelativeLayout>
```

# Android Studio Yeni Proje Oluřturma



Kütüphaneler “.jar” uzantılı paketlenmiş Java dosyalarıdır.



# Android Studio Yeni Proje Oluşturma

The screenshot shows the Android Studio interface with the following elements:

- Menu Bar:** File, Edit, View, Navigate, Code, Analyze, Refactor, Build, Run, Tools, VCS, Window, Help.
- Toolbar:** Standard IDE navigation and development tools.
- Project Structure View (Left):** Shows the project hierarchy including folders like 'res', 'drawable', 'layout', and files like 'activity\_main.xml', 'AndroidManifest.xml', and 'build.gradle'.
- Code Editor (Center):** Displays the content of 'build.gradle' with the following code:

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

android {
    compileSdkVersion 21
    buildToolsVersion "21.1.2"

    defaultConfig {
        applicationId "com.mobilife.myapplication"
        minSdkVersion 21
        targetSdkVersion 21
        versionCode 1
        versionName "1.0"
    }

    buildTypes {
        release {
            minifyEnabled false
            proguardFiles getDefaultProguardFile('proguard-android.txt'), 'proguard-rules.pro'
        }
    }
}

dependencies {
    compile fileTree(dir: 'libs', include: ['*.jar'])
}
```
- Annotations (Right):** Red arrows point to specific lines in the code with the following text:
  - Arrow pointing to `compileSdkVersion 21` and `buildToolsVersion "21.1.2"`: "Uygulamanın derleneceği android sdk'nın sürümü ve build edilecek tool versiyonu"
  - Arrow pointing to `minSdkVersion 21`: "Uygulamanın çalışacağı minimum android sürümü (versionCode ve versionName uygulamayı export ederken kullanılan config ayarlarıdır.)"
  - Arrow pointing to `compile fileTree(dir: 'libs', include: ['*.jar'])`: "libs klasörü altındaki tüm .jar uzantılı dosyaların derleneceği belirtilmiştir."
- Bottom Status Bar:** Shows "Gradle build finished in 13 sec (4 minutes ago)" and other system information.

# Android Studio Yeni Proje Oluřturma

AndroidManifest.xml - [app] - My Application - [~/Desktop/kpssws/MyApplication]

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

    <application
        android:allowBackup="true"
        android:icon="@drawable/ic_launcher"
        android:label="My Application"
        android:theme="@style/AppTheme" >
        <activity
            android:name=".MainActivity"
            android:label="My Application" >
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

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

**-Uygulamanın tema, isim ve icon ayarlamaları yapılır.**  
**-Uygulamanın kullanacağı izinler (permission) verilir.**  
**-Uygulama içerisindeki activity tanımlamaları yapılır.**

Terminal 6: Android 0: Messages TODO Event Log Gradle Console Memory Monitor  
Gradle build finished in 13 sec (4 minutes ago) 1:1 LF UTF-8