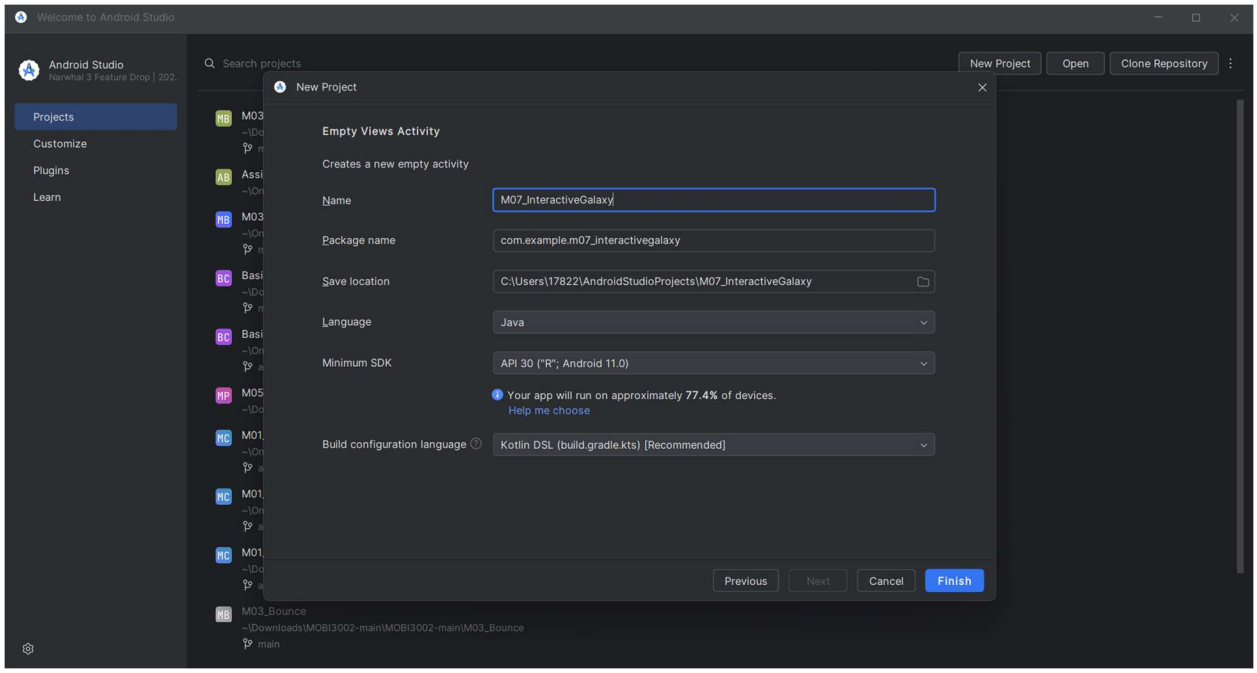
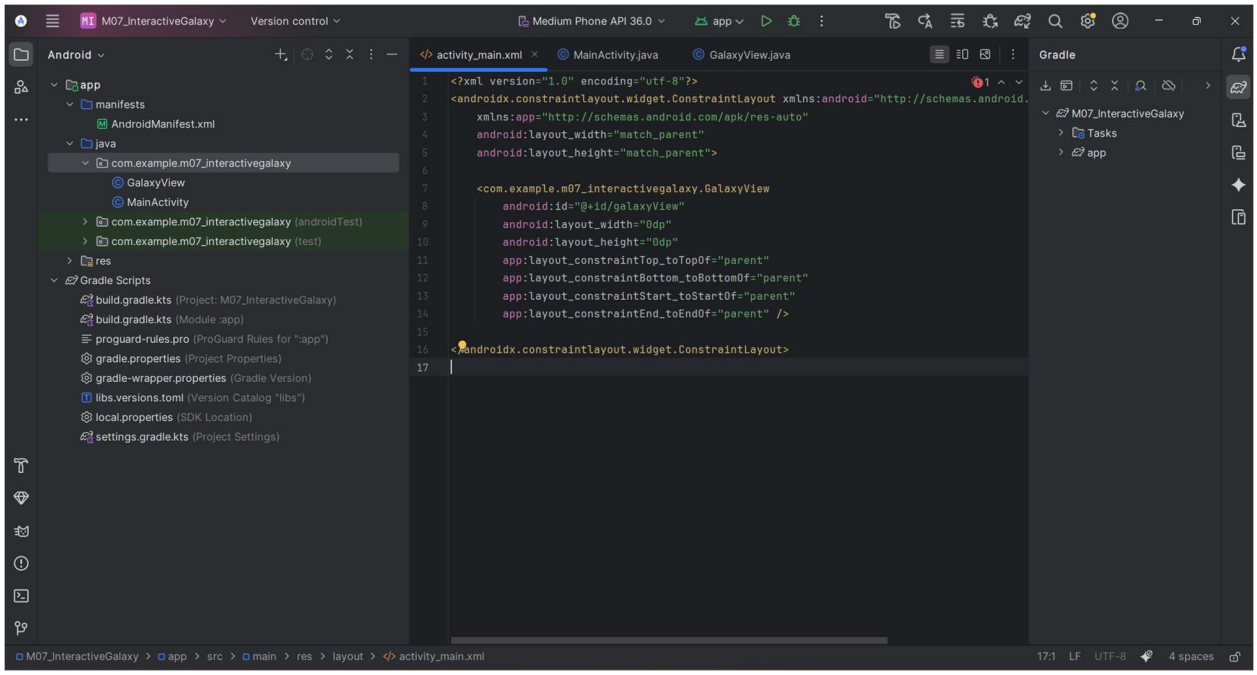
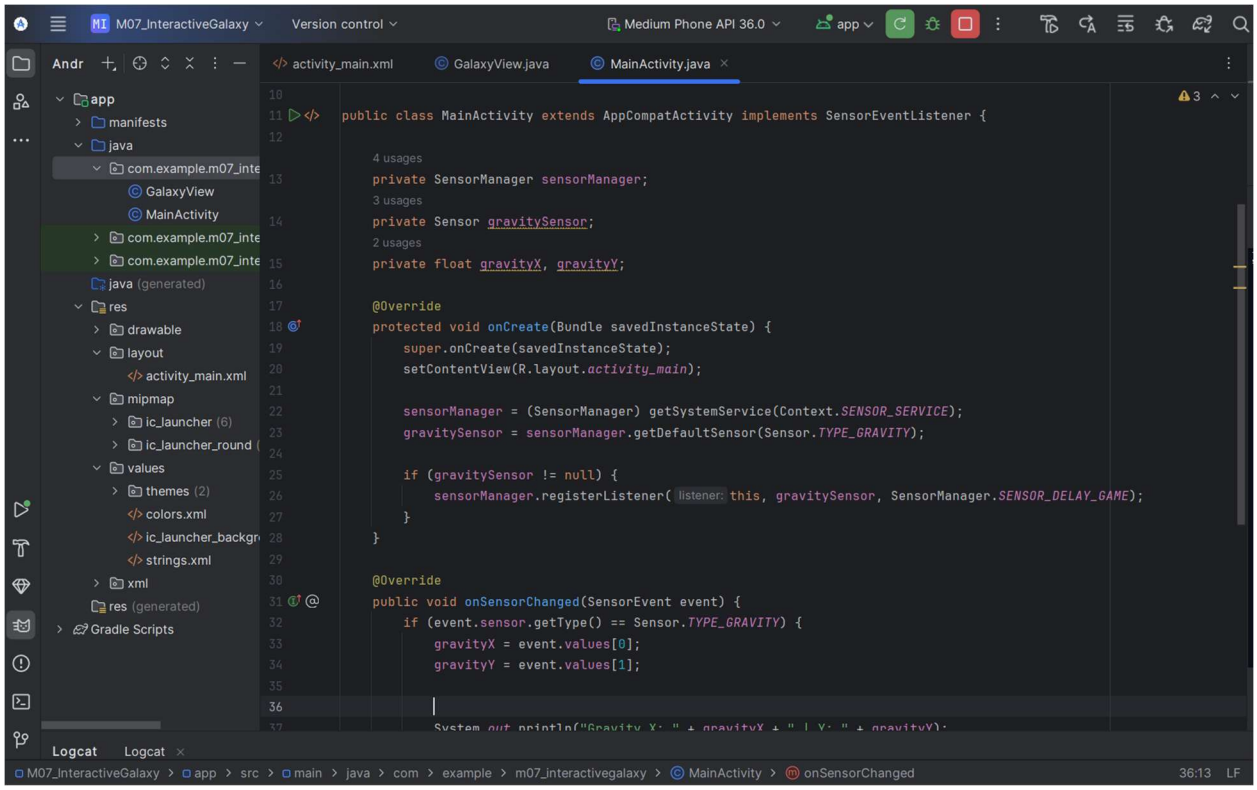
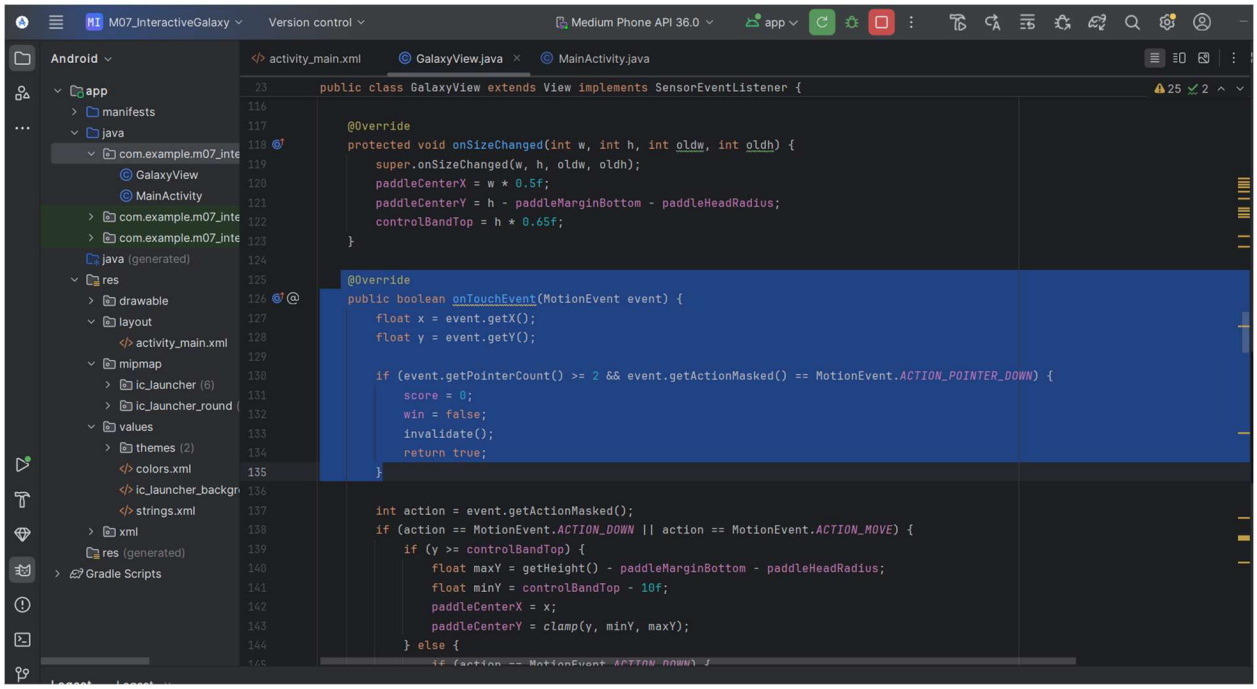

Welcome to Android Studio
Android Studio
Narwhal 3 Feature Drop | 202...
Projects
Customize
Plugins
Learn
Search projects
New Project
Open
Clone Repository
New Project
Empty Views Activity
Creates a new empty activity
Name
M07_InteractiveGalaxy
Package name
com.example.m07_interactivegalaxy
Save location
C:\Users\17822\AndroidStudioProjects\M07_InteractiveGalaxy
Language
Java
Minimum SDK
API 30 ("R"; Android 11.0)
Your app will run on approximately 77.4% of devices.
Help me choose
Build configuration language
Kotlin DSL (build.gradle.kts) [Recommended]
Previous
Next
Cancel
Finish
M03_Bounce
~\Downloads\MOBI3002-main\MOBI3002-main\M03_Bounce
main


M07_InteractiveGalaxy
Version control
Medium Phone API 36.0
app
Android
app
manifests
AndroidManifest.xml
java
com.example.m07_interactivegalaxy
GalaxyView
MainActivity
com.example.m07_interactivegalaxy (androidTest)
com.example.m07_interactivegalaxy (test)
res
Gradle Scripts
build.gradle.kts (Project: M07_InteractiveGalaxy)
build.gradle.kts (Module :app)
proguard-rules.pro (ProGuard Rules for ":app")
gradle.properties (Project Properties)
gradle-wrapper.properties (Gradle Version)
libs.versions.toml (Version Catalog "libs")
local.properties (SDK Location)
settings.gradle.kts (Project Settings)
activity_main.xml
MainActivity.java
GalaxyView.java
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.
xmlns:app="http://schemas.android.com/apk/res-auto"
android:layout_width="match_parent"
android:layout_height="match_parent">
<com.example.m07_interactivegalaxy.GalaxyView
android:id="@+id/galaxyView"
android:layout_width="0dp"
android:layout_height="0dp"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintEnd_toEndOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
Gradle
M07_InteractiveGalaxy
Tasks
app
M07_InteractiveGalaxy > app > src > main > res > layout > activity_main.xml
17:1
LF
UTF-8
4 spaces



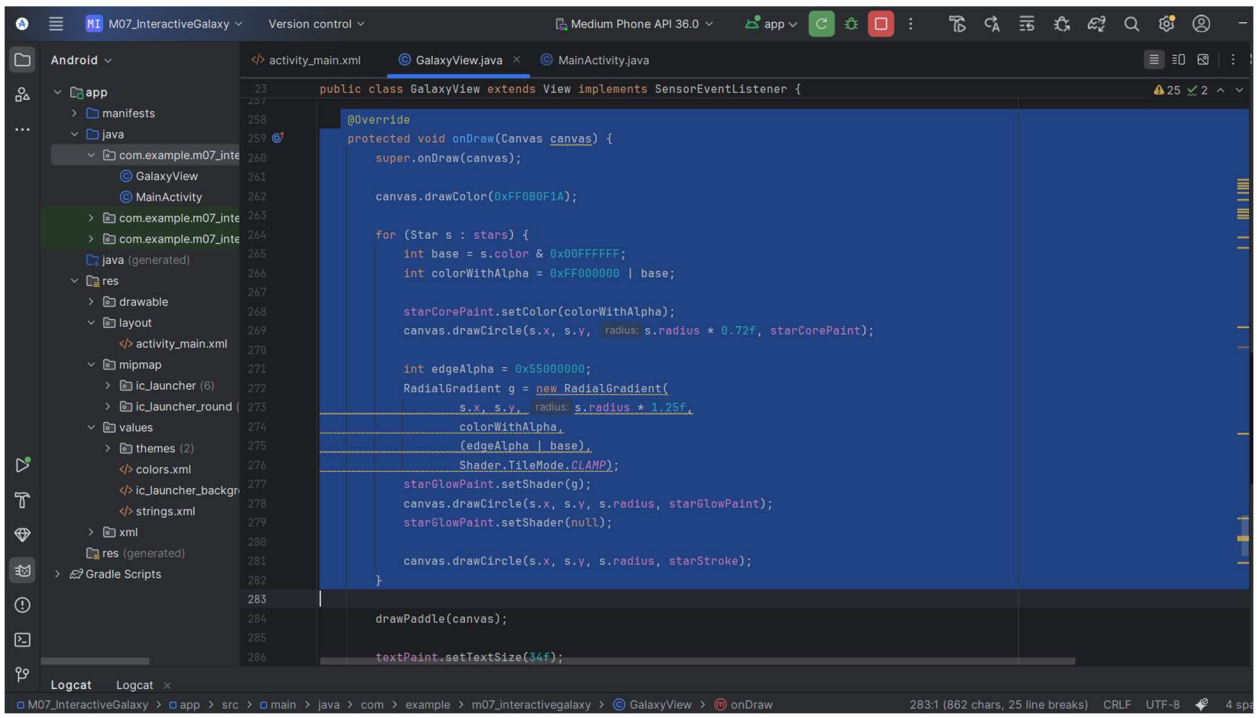
Gravity Sensor Setup (MainActivity.java)

This code registers the gravity sensor and updates the object's X and Y positions in real time. The values are used to simulate tilt movement inside the game



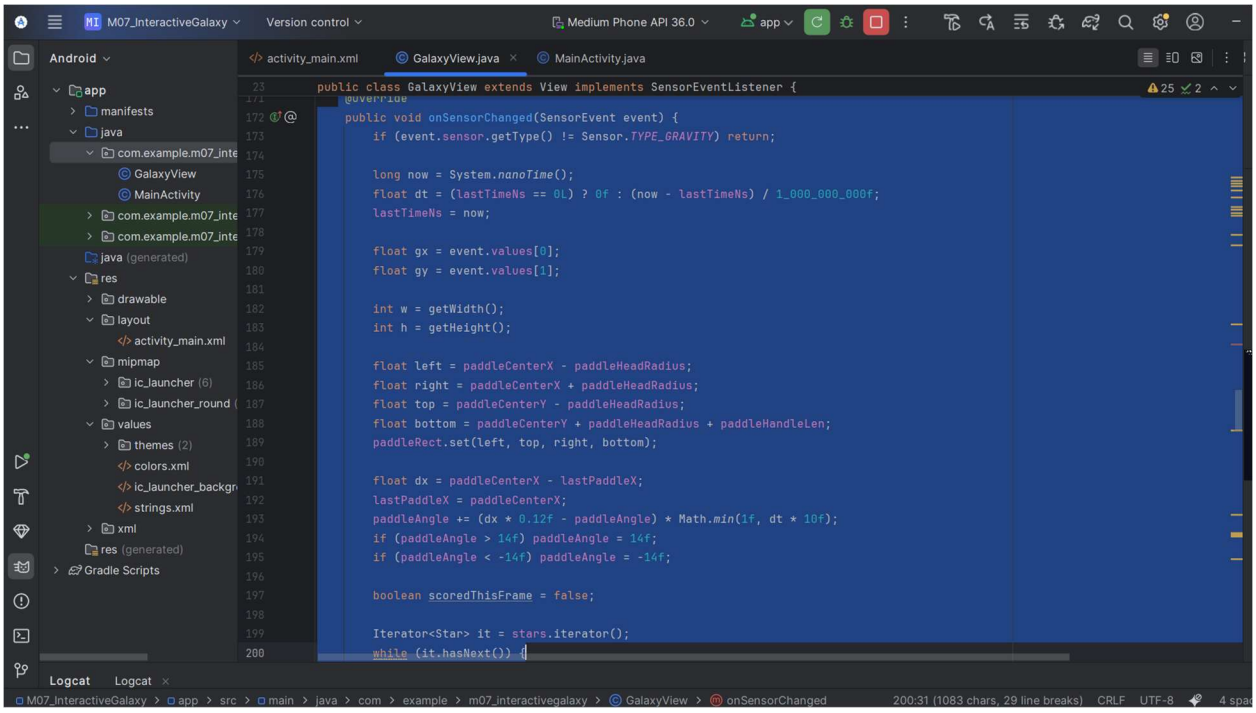
Touch Input Handling (GalaxyView.java)

This part of the code detects when the user touches or drags on the screeN.The paddle moves or new balls are created according to the touch actions



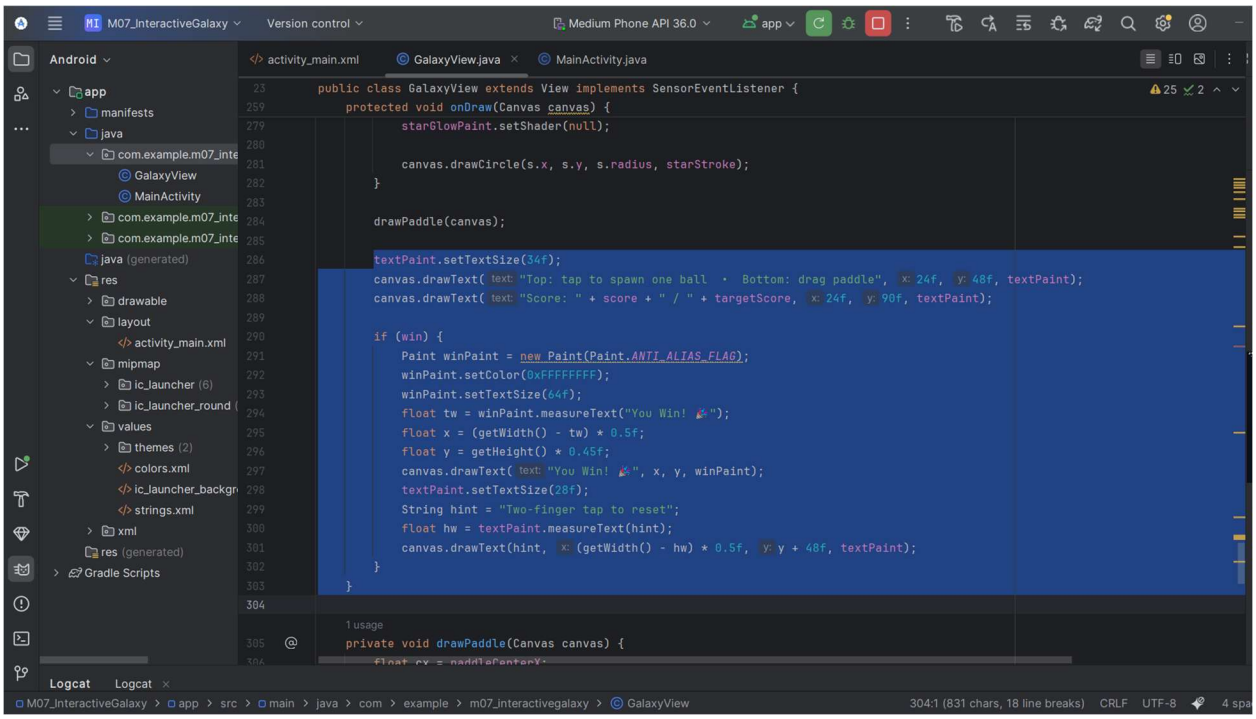
Drawing and Game Updates (GalaxyView.java)

This section draws the paddle, balls, and score on the canvas. It updates the positions continuously to create the animation



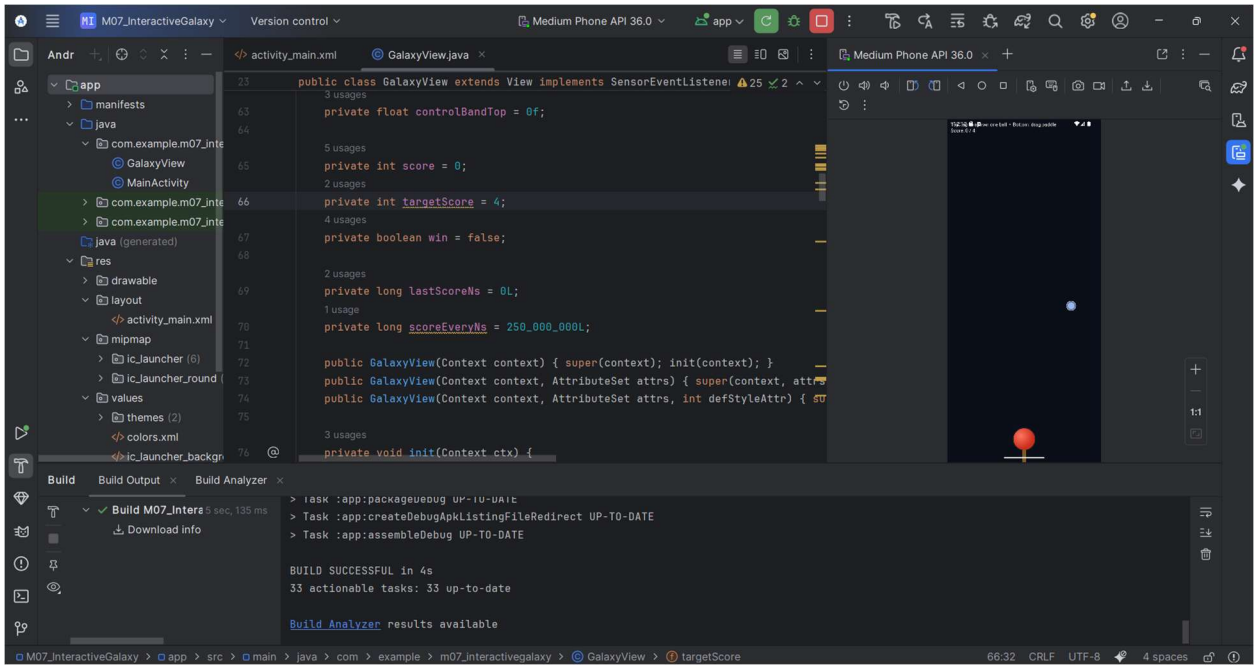
Gravity Sensor Handling (GalaxyView.java)

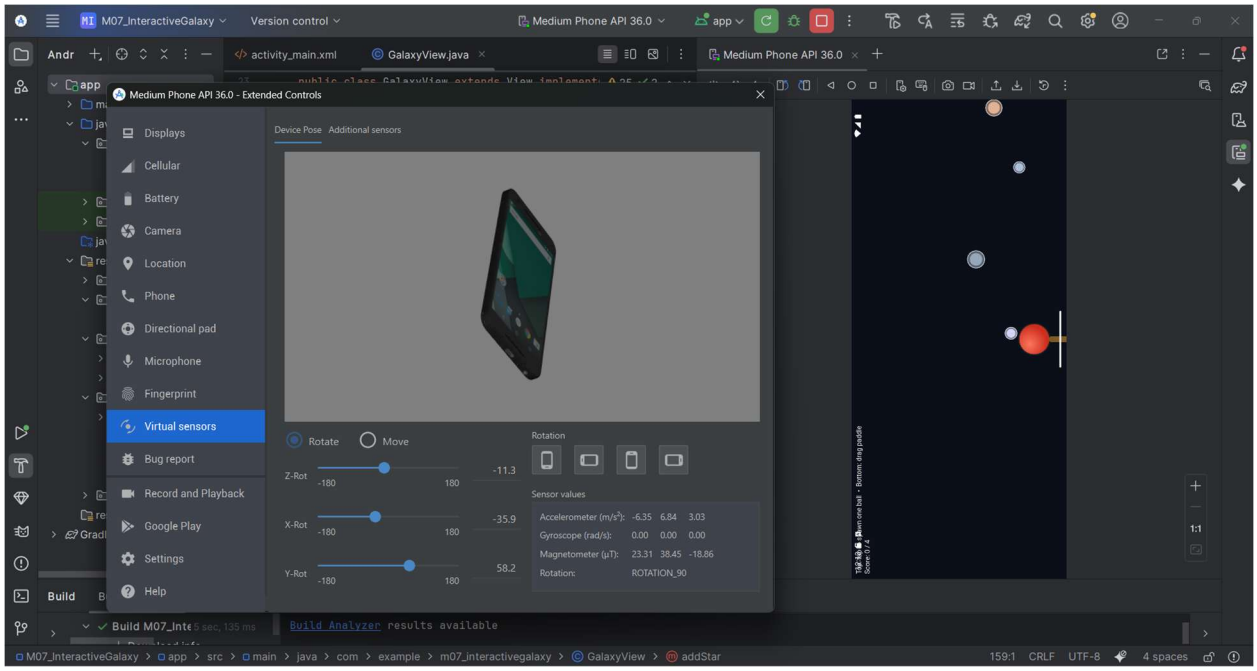
This part receives gravity sensor data and uses it to control the paddle movement in the game

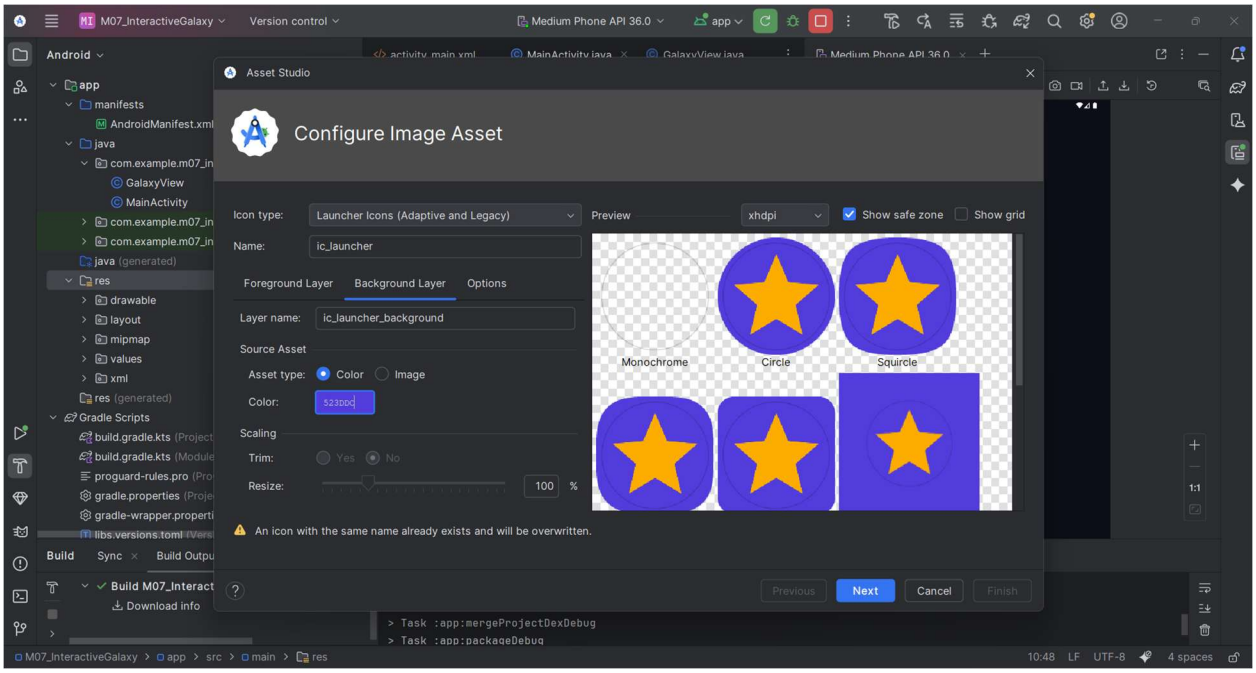


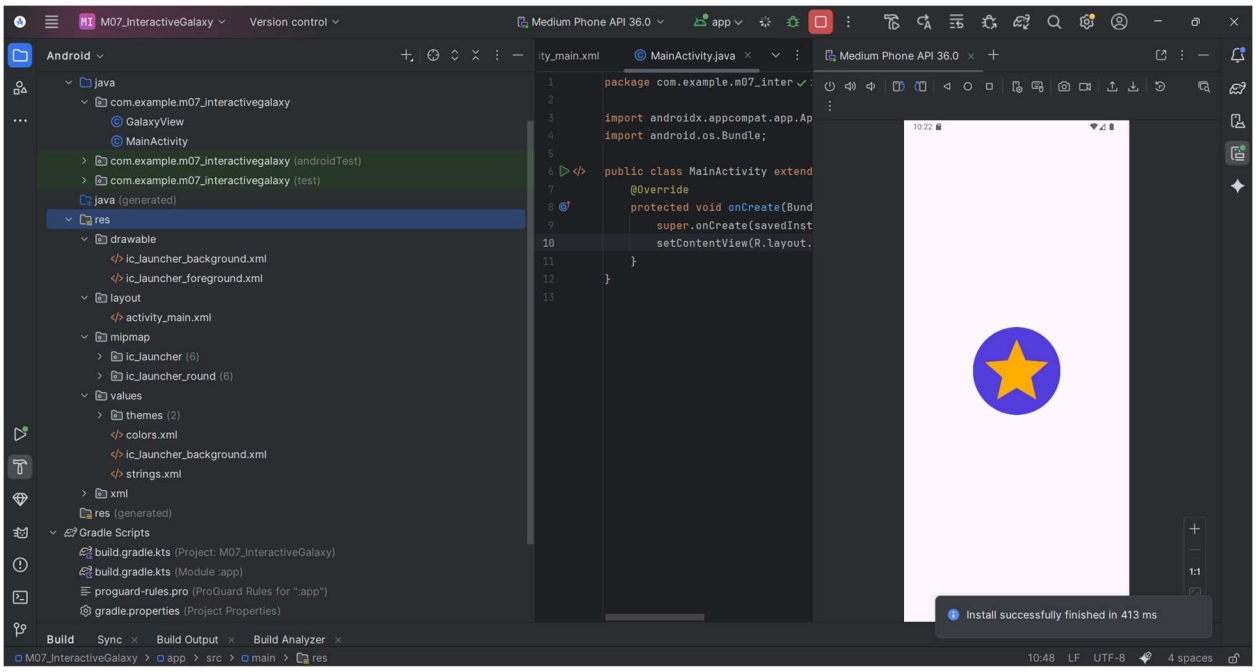
Scoring and Winning Logic (GalaxyView.java)

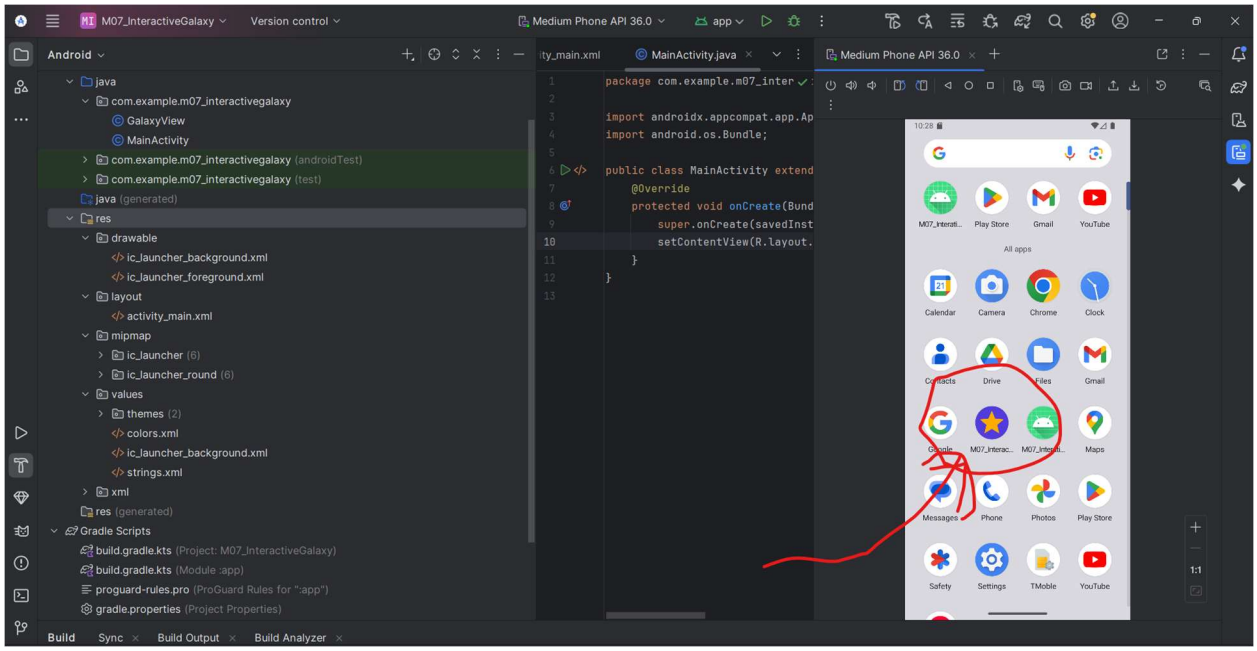
This part of the code increases the score each time the paddle hits a ball and displays a “You Win”message when the player reaches the target score

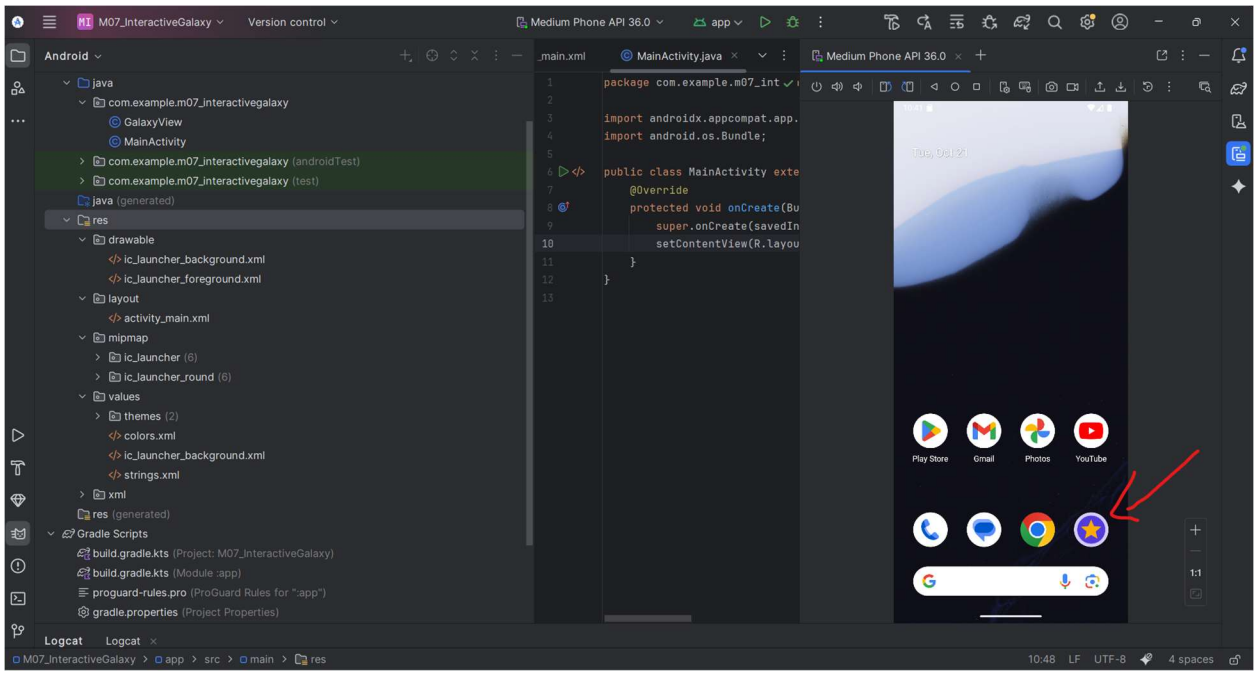

M07_InteractiveGalaxy
Version control
Medium Phone API 36.0
app
activity_main.xml
GalaxyView.java
Medium Phone API 36.0
public class GalaxyView extends View implements SensorEventListener
private float controlBandTop = 0f;
private int score = 0;
private int targetScore = 4;
private boolean win = false;
private long lastScoreNs = 0L;
private long scoreEveryNs = 250_000_000L;
public GalaxyView(Context context) { super(context); init(context); }
public GalaxyView(Context context, AttributeSet attrs) { super(context, attrs
public GalaxyView(Context context, AttributeSet attrs, int defStyleAttr) { su
private void init(Context ctx) {
Build
Build Output
Build Analyzer
> Task :app:createDebugApkListingFileRedirect UP-TO-DATE
> Task :app:assembleDebug UP-TO-DATE
BUILD SUCCESSFUL in 4s
33 actionable tasks: 33 up-to-date
Build Analyzer results available
M07_InteractiveGalaxy > app > src > main > java > com > example > m07_interactivegalaxy > GalaxyView > targetScore
66:32
CRLF
UTF-8
4 spaces

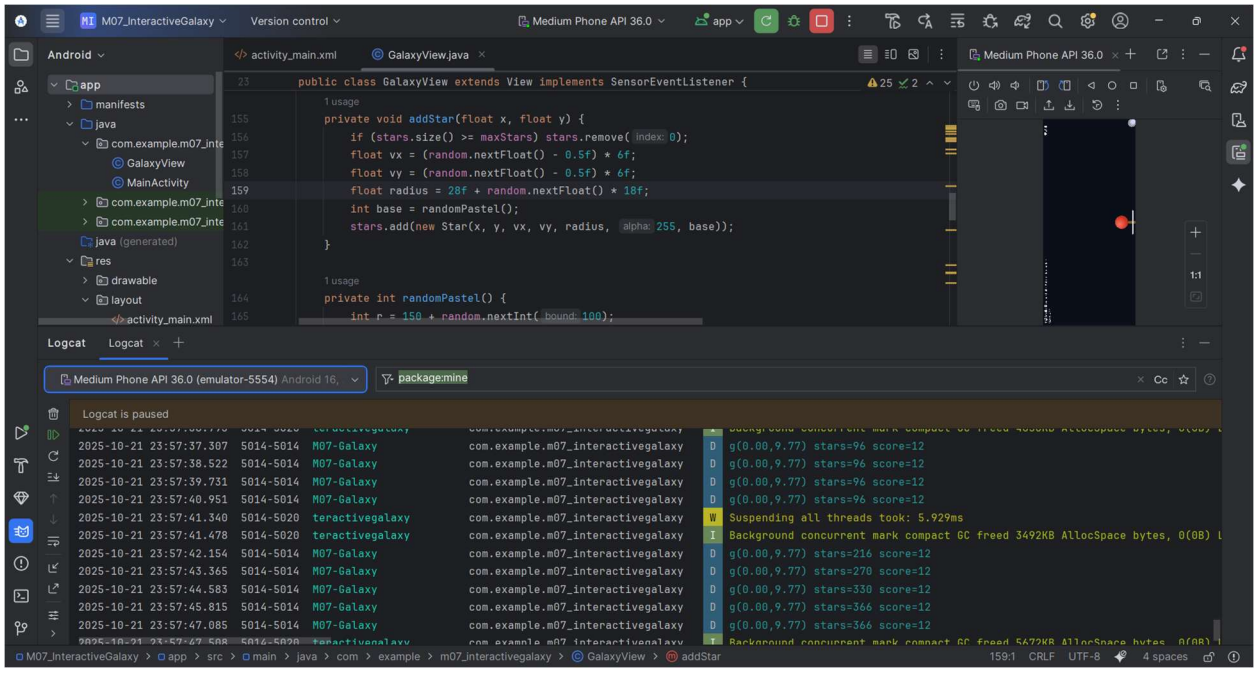

Medium Phone API 36.0 - Extended Controls
Displays
Cellular
Battery
Camera
Location
Phone
Directional pad
Microphone
Fingerprint
Virtual sensors
Bug report
Record and Playback
Google Play
Settings
Help
Device Pose
Additional sensors
Rotate
Move
Z-Rot
-180
180
-11.3
X-Rot
-35.9
Y-Rot
58.2
Rotation
Sensor values
Accelerometer (m/s²): -6.35 6.84 3.03
Gyroscope (rad/s): 0.00 0.00 0.00
Magnetometer (µT): 23.31 38.45 -18.86
Rotation: ROTATION_90
M07_InteractiveGalaxy > app > src > main > java > com > example > m07_interactivegalaxy > GalaxyView > addStar
159:1
CRLF
UTF-8
4 spaces

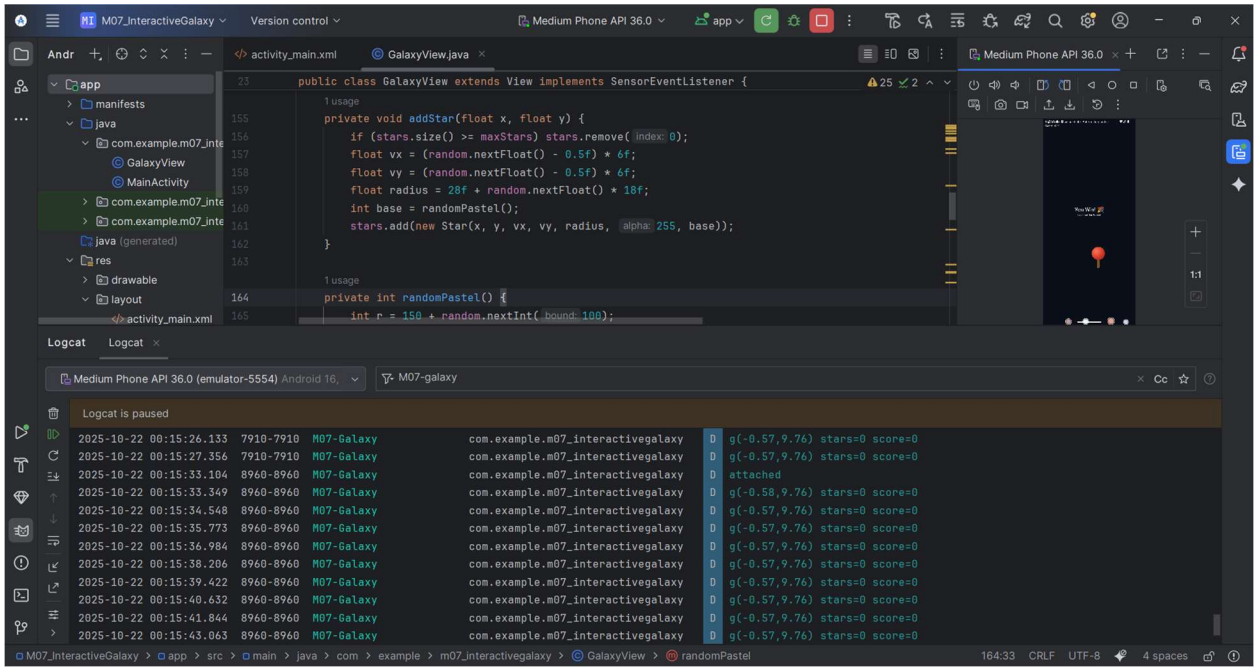

Asset Studio
Configure Image Asset
Icon type:
Launcher Icons (Adaptive and Legacy)
Name:
ic_launcher
Foreground Layer
Background Layer
Options
Layer name:
ic_launcher_background
Source Asset
Asset type:
Color
Image
Color:
Scaling
Trim:
Resize:
100
%
Preview
xhdpi
Show safe zone
Show grid
Monochrome
Circle
Squircle
An icon with the same name already exists and will be overwritten.
Previous
Next
Cancel
Finish

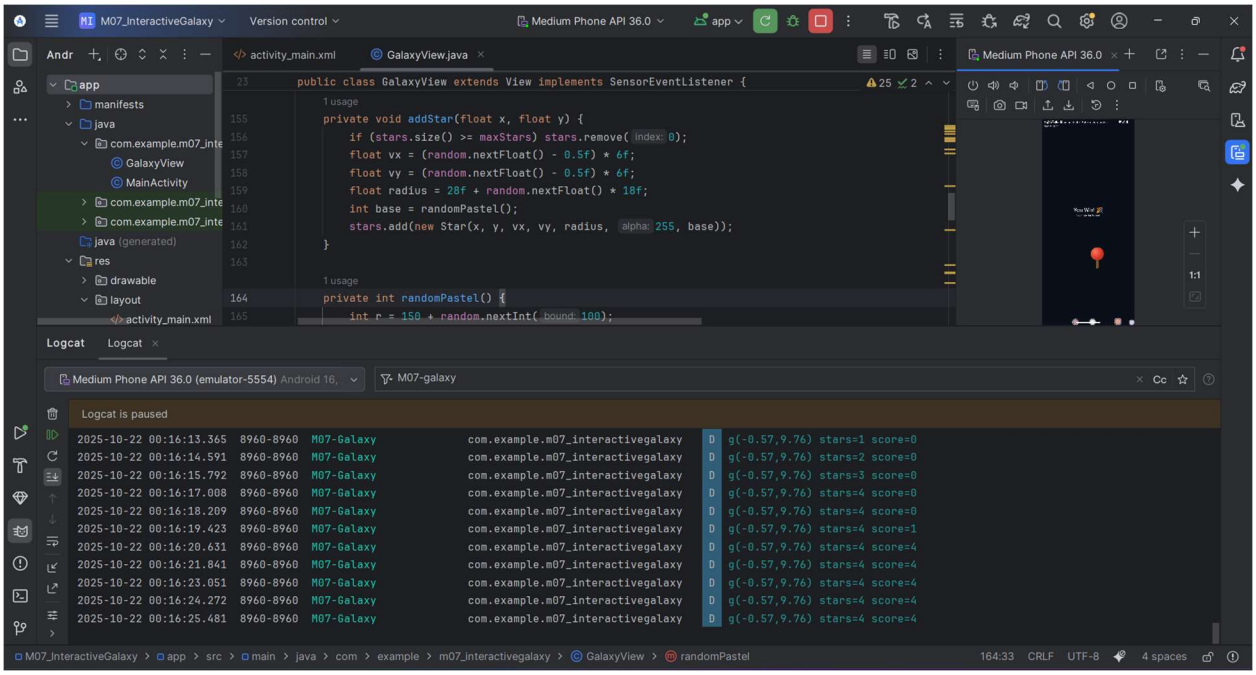

Install successfully finished in 413 ms


M07_InteractiveGalaxy
Version control
Medium Phone API 36.0
app
Android
MainActivity.java
Medium Phone API 36.0
java
com.example.m07_interactivegalaxy
GalaxyView
MainActivity
com.example.m07_interactivegalaxy (androidTest)
com.example.m07_interactivegalaxy (test)
java (generated)
res
drawable
ic_launcher_background.xml
ic_launcher_foreground.xml
layout
activity_main.xml
mipmap
ic_launcher (6)
ic_launcher_round (6)
values
themes (2)
colors.xml
ic_launcher_background.xml
strings.xml
xml
res (generated)
Gradle Scripts
build.gradle.kts (Project: M07_InteractiveGalaxy)
build.gradle.kts (Module :app)
proguard-rules.pro (ProGuard Rules for ":app")
gradle.properties (Project Properties)
Build
Sync
Build Output
Build Analyzer
Play Store
Gmail
YouTube
Calendar
Camera
Chrome
Clock
Maps
Messages
Phone
Photos
Safety
Settings
TMoble


M07_InteractiveGalaxy
Version control
Medium Phone API 36.0
app
Android
MainActivity.java
Medium Phone API 36.0
java
com.example.m07_interactivegalaxy
GalaxyView
MainActivity
com.example.m07_interactivegalaxy (androidTest)
com.example.m07_interactivegalaxy (test)
java (generated)
res
drawable
ic_launcher_background.xml
ic_launcher_foreground.xml
layout
activity_main.xml
mipmap
ic_launcher (6)
ic_launcher_round (6)
values
themes (2)
colors.xml
ic_launcher_background.xml
strings.xml
xml
res (generated)
Gradle Scripts
build.gradle.kts (Project: M07_InteractiveGalaxy)
build.gradle.kts (Module :app)
proguard-rules.pro (ProGuard Rules for ":app")
gradle.properties (Project Properties)
Logcat
Play Store
Gmail
Photos
YouTube


M07_InteractiveGalaxy
Version control
Medium Phone API 36.0
app
Android
activity_main.xml
GalaxyView.java
app
manifests
java
com.example.m07_inte
GalaxyView
MainActivity
com.example.m07_inte
com.example.m07_inte
java (generated)
res
drawable
layout
activity_main.xml
public class GalaxyView extends View implements SensorEventListener {
1 usage
private void addStar(float x, float y) {
if (stars.size() >= maxStars) stars.remove(index: 0);
float vx = (random.nextFloat() - 0.5f) * 6f;
float vy = (random.nextFloat() - 0.5f) * 6f;
float radius = 28f + random.nextFloat() * 18f;
int base = randomPastel();
stars.add(new Star(x, y, vx, vy, radius, alpha: 255, base));
}
1 usage
private int randomPastel() {
int r = 150 + random.nextInt(bound: 100);
Medium Phone API 36.0
1:1
Logcat
Logcat
Medium Phone API 36.0 (emulator-5554) Android 16,
package:mine
Logcat is paused
2025-10-21 23:57:37.307 5014-5014 M07-Galaxy com.example.m07_interactivegalaxy D g(0.00,9.77) stars=96 score=12
2025-10-21 23:57:38.522 5014-5014 M07-Galaxy com.example.m07_interactivegalaxy D g(0.00,9.77) stars=96 score=12
2025-10-21 23:57:39.731 5014-5014 M07-Galaxy com.example.m07_interactivegalaxy D g(0.00,9.77) stars=96 score=12
2025-10-21 23:57:40.951 5014-5014 M07-Galaxy com.example.m07_interactivegalaxy D g(0.00,9.77) stars=96 score=12
2025-10-21 23:57:41.340 5014-5020 teractivegalaxy com.example.m07_interactivegalaxy W Suspending all threads took: 5.929ms
2025-10-21 23:57:41.478 5014-5020 teractivegalaxy com.example.m07_interactivegalaxy I Background concurrent mark compact GC freed 3492KB AllocSpace bytes, 0(0B)
2025-10-21 23:57:42.154 5014-5014 M07-Galaxy com.example.m07_interactivegalaxy D g(0.00,9.77) stars=216 score=12
2025-10-21 23:57:43.365 5014-5014 M07-Galaxy com.example.m07_interactivegalaxy D g(0.00,9.77) stars=270 score=12
2025-10-21 23:57:44.583 5014-5014 M07-Galaxy com.example.m07_interactivegalaxy D g(0.00,9.77) stars=330 score=12
2025-10-21 23:57:45.815 5014-5014 M07-Galaxy com.example.m07_interactivegalaxy D g(0.00,9.77) stars=366 score=12
2025-10-21 23:57:47.085 5014-5014 M07-Galaxy com.example.m07_interactivegalaxy D g(0.00,9.77) stars=366 score=12
M07_InteractiveGalaxy > app > src > main > java > com > example > m07_interactivegalaxy > GalaxyView > addStar
159:1 CRLF UTF-8 4 spaces


M07_InteractiveGalaxy
Version control
Medium Phone API 36.0
app
activity_main.xml
GalaxyView.java
app
manifests
java
com.example.m07_inte
GalaxyView
MainActivity
com.example.m07_inte
com.example.m07_inte
java (generated)
res
drawable
layout
activity_main.xml
public class GalaxyView extends View implements SensorEventListener {
1 usage
private void addStar(float x, float y) {
if (stars.size() >= maxStars) stars.remove(index: 0);
float vx = (random.nextFloat() - 0.5f) * 6f;
float vy = (random.nextFloat() - 0.5f) * 6f;
float radius = 28f + random.nextFloat() * 18f;
int base = randomPastel();
stars.add(new Star(x, y, vx, vy, radius, alpha: 255, base));
}
1 usage
private int randomPastel() {
int r = 150 + random.nextInt(bound: 100);
Medium Phone API 36.0
1:1
Logcat
Logcat
Medium Phone API 36.0 (emulator-5554) Android 16,
M07-galaxy
Logcat is paused
2025-10-22 00:15:26.133 7910-7910 M07-Galaxy com.example.m07_interactivegalaxy D g(-0.57,9.76) stars=0 score=0
2025-10-22 00:15:27.356 7910-7910 M07-Galaxy com.example.m07_interactivegalaxy D g(-0.57,9.76) stars=0 score=0
2025-10-22 00:15:33.104 8960-8960 M07-Galaxy com.example.m07_interactivegalaxy D attached
2025-10-22 00:15:33.349 8960-8960 M07-Galaxy com.example.m07_interactivegalaxy D g(-0.58,9.76) stars=0 score=0
2025-10-22 00:15:34.548 8960-8960 M07-Galaxy com.example.m07_interactivegalaxy D g(-0.57,9.76) stars=0 score=0
2025-10-22 00:15:35.773 8960-8960 M07-Galaxy com.example.m07_interactivegalaxy D g(-0.57,9.76) stars=0 score=0
2025-10-22 00:15:36.984 8960-8960 M07-Galaxy com.example.m07_interactivegalaxy D g(-0.57,9.76) stars=0 score=0
2025-10-22 00:15:38.206 8960-8960 M07-Galaxy com.example.m07_interactivegalaxy D g(-0.57,9.76) stars=0 score=0
2025-10-22 00:15:39.422 8960-8960 M07-Galaxy com.example.m07_interactivegalaxy D g(-0.57,9.76) stars=0 score=0
2025-10-22 00:15:40.632 8960-8960 M07-Galaxy com.example.m07_interactivegalaxy D g(-0.57,9.76) stars=0 score=0
2025-10-22 00:15:41.844 8960-8960 M07-Galaxy com.example.m07_interactivegalaxy D g(-0.57,9.76) stars=0 score=0
2025-10-22 00:15:43.063 8960-8960 M07-Galaxy com.example.m07_interactivegalaxy D g(-0.57,9.76) stars=0 score=0
M07_InteractiveGalaxy > app > src > main > java > com > example > m07_interactivegalaxy > GalaxyView > randomPastel
164:33 CRLF UTF-8 4 spaces



Logcat output confirming that the app runs successfully without any errors