

PROJECT REPORT
ANDROID GAME APPLICATION
NUMBER GUESSING GAME

SUBMITTED BY SHILPA DEEPAK

GUIDED BY : MS PRATHIBHA PRAKASH

ROLL NO: AM.EN.U4CSE21252

Project Summary :

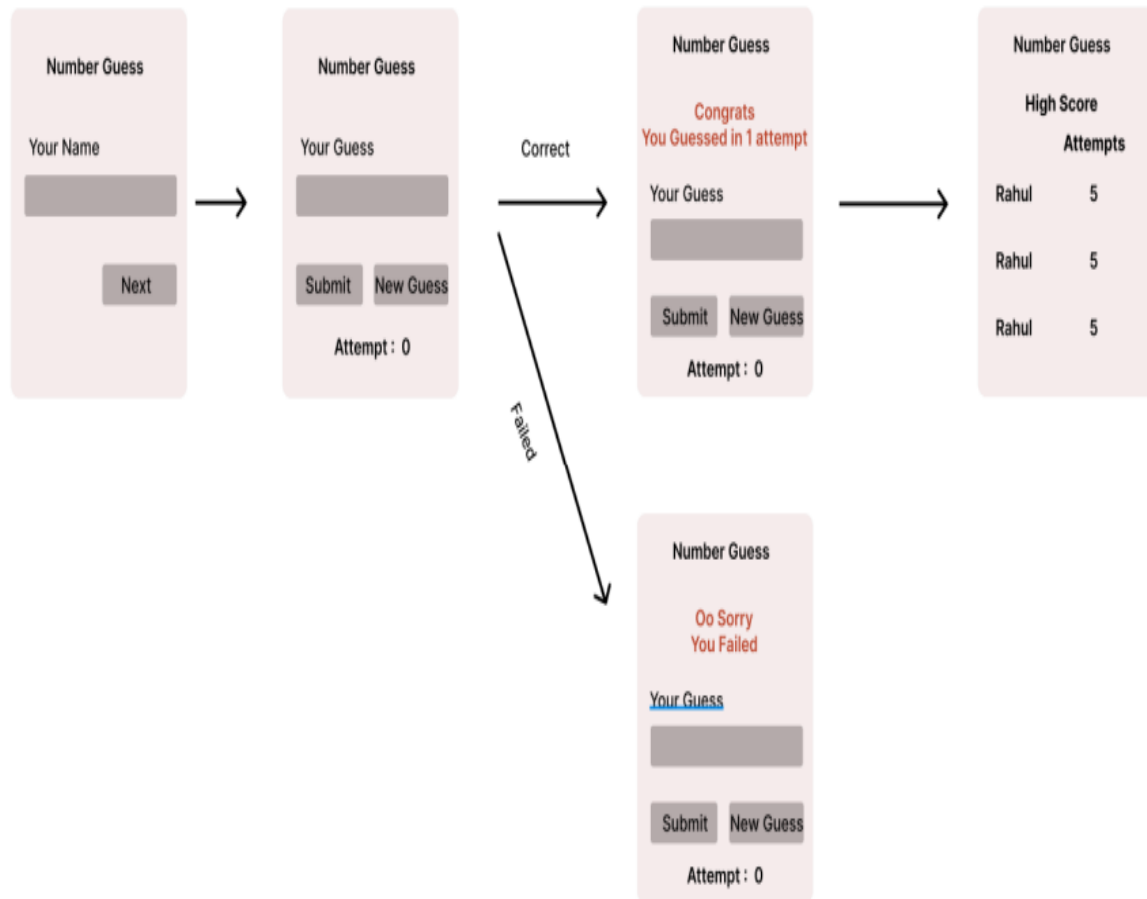
The Number Guessing Game is a simple yet engaging Android app developed using Java in Android Studio. It allows players to compete against a machine by guessing a randomly generated number. The goal of the game is for the player to match their guess with the machine's randomly generated number within a set limit of 10 attempts. The game is designed to provide quick, engaging gameplay while keeping track of player performance.

Project Scope :

Standalone Mobile Application for Android Devices The Number Guessing Game is a self-contained mobile application designed specifically for Android devices. Developed using Java in Android Studio, it provides an immersive and straightforward gaming experience with no need for internet connectivity. The game is lightweight and easy to install, making it accessible to a wide range of Android users. The app's interface and gameplay mechanics are tailored to deliver a seamless user experience on mobile devices, focusing on ease of use and immediate engagement.

Key Features 1. Player Name Input: o Upon launching the game, users are prompted to enter their name via a simple text input field. This personalizes the experience by associating each game session with the player's name. o The player name can also be used to display feedback and messages during gameplay, such as "Great job, when a correct guess is made. This feature adds a personal touch, increasing user engagement.

Design of the mobile app:



activity main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:orientation="vertical"
    android:padding="48dp"
    android:gravity="center">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Number Guess"
        android:textSize="24sp"
        android:layout_marginBottom="32dp"
        tools:ignore="HardcodedText" />

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Your Name"
        android:layout_marginBottom="8dp"/>

    <EditText
        android:id="@+id/nameInput"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:autofillHints=""
        android:hint="Enter your name"
        android:inputType="textPersonName"
        android:layout_marginBottom="48dp"
        android:inputType="textPersonName"
        android:layout_marginBottom="48dp"
        tools:ignore="HardcodedText" />

    <Button
        android:id="@+id/nextButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Next"
        tools:ignore="HardcodedText" />

    <TextView
        android:id="@+id/textView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="By Clicking next your are agreeing to our terms & conditions"
        tools:ignore="HardcodedText" />
```

Score_item.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:padding="8dp">

    <TextView
        android:id="@+id/playerNameText"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:textSize="16sp"/>

    <TextView
        android:id="@+id/attemptsText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="8dp"
        android:textSize="16sp"/>

    <TextView
        android:id="@+id/resultText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="8dp"
        android:textSize="16sp"/>

</LinearLayout>
```

Activity_score.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:padding="16dp">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Number Guess"
        android:textSize="24sp"
        android:layout_gravity="center"
        android:layout_marginBottom="16dp"/>

    <TextView
        android:id="@+id/resultText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textSize="18sp"
        android:gravity="center"
        android:layout_gravity="center"
        android:layout_marginBottom="8dp"/>

    <TextView
        android:id="@+id/scoreText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textSize="16sp"
        android:layout_gravity="center"
        android:layout_marginBottom="16dp"/>
```

```
        android:layout_gravity="center"  
        android:layout_marginBottom="16dp"/>
```

<Button

```
    android:id="@+id/newGameButton"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:text="New Game"  
    android:layout_gravity="center"  
    android:layout_marginBottom="16dp"/>
```

<TextView

```
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:text="High Scores"  
    android:textSize="20sp"  
    android:layout_marginBottom="8dp"/>
```

<ListView

```
    android:id="@+id/scoreListView"  
    android:layout_width="match_parent"  
    android:layout_height="0dp"  
    android:layout_weight="1"/>
```

LinearLayout>

Activity game.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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"
    android:orientation="vertical"
    android:padding="16dp">

    <ImageView
        android:id="@+id/hintIcon"
        android:layout_width="match_parent"
        android:layout_height="34dp"
        android:layout_marginTop="16dp"
        android:contentDescription="Hint Icon"
        android:scaleType="fitEnd"
        android:src="@drawable/website" />

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:gravity="center"
        android:orientation="vertical">

        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginBottom="32dp"
            android:text="Number Guess"
            android:textSize="24sp" />

    </LinearLayout>

</LinearLayout>
```

<TextView

```
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:layout_marginBottom="8dp"  
    android:text="Your Guess" />
```

<EditText

```
    android:id="@+id/guessInput"  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"  
    android:layout_marginBottom="16dp"  
    android:hint="Enter your guess (1-100)"  
    android:inputType="number" />
```

<LinearLayout

```
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:orientation="horizontal">
```

<Button

```
    android:id="@+id/submitButton"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:layout_marginEnd="8dp"  
    android:text="Submit" />
```

<Button

```
    android:id="@+id/newGameButton"
```



```
        <Button
            android:id="@+id/newGameButton"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="New Game" />
    </LinearLayout>

    <TextView
        android:id="@+id/attemptsText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="16dp"
        android:text="Attempt: 0" />
</LinearLayout>

</LinearLayout>
```

Thanks,

Shilpa Deepak