

Assignment1:

Name: Yastee Shah | ID: 1227980 | Subject: (2024A) COMP-5450-AA - Mobile Programming

Code:

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"
    tools:context=".MainActivity"
    android:gravity="center"
    android:padding="16dp"
    android:background="@drawable/background_image">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Select a theme and get a quote??"
        android:layout_below="@id/showQuoteButton"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="30dp"
        android:textSize="18sp"
        android:padding="16dp"
        android:background="@drawable/quote_background"
        android:textColor="@android:color/black" />

    <Spinner
        android:id="@+id/themeSpinner"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:spinnerMode="dialog"
        android:layout_marginHorizontal="50dp"
        android:background="@drawable/spinner_background"
        android:padding="10dp" />

    <Button
        android:id="@+id/showQuoteButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Show Quote"
        android:visibility="gone"
        android:layout_below="@id/themeSpinner"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="20dp"
```

```

        android:background="@drawable/button_background"
        android:textColor="@android:color/white"
        android:padding="10dp" />

<TextView
    android:id="@+id/quoteTextView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Select a theme and get a quote"
    android:layout_below="@id/showQuoteButton"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="60dp"
    android:textSize="18sp"
    android:padding="16dp"
    android:background="@drawable/quote_background"
    android:textColor="@android:color/black" />

<Button
    android:id="@+id/shareQuoteBtn"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Share Quote"
    android:layout_marginTop="20dp"
    android:background="@drawable/button_background"
    android:textColor="@android:color/white"
    android:padding="10dp" />
</LinearLayout>

```

button_background.xml

```

<?xml version="1.0" encoding="utf-8"?>
<selector xmlns:android="http://schemas.android.com/apk/res/android">
    <item android:state_pressed="true">
        <shape>
            <solid android:color="@android:color/holo_blue_dark"/>
            <corners android:radius="10dp"/>
        </shape>
    </item>
    <item>
        <shape>
            <solid android:color="@android:color/holo_blue_light"/>
            <corners android:radius="10dp"/>
        </shape>
    </item>
</selector>

```

This drawable can be used as a background for a button or other UI elements to provide visual feedback when the user interacts with it. To use it, save the file with a .xml extension (e.g., button_selector.xml) in the res/drawable directory of your Android project and reference it in your layouts or styles.

ic_launcher_background.xml

```
<?xml version="1.0" encoding="utf-8"?>
<vector xmlns:android="http://schemas.android.com/apk/res/android"
    android:width="108dp"
    android:height="108dp"
    android:viewportWidth="108"
    android:viewportHeight="108">
    <path
        android:fillColor="#3DDC84"
        android:pathData="M0,0h108v108h-108z" />
    <path
        android:fillColor="#00000000"
        android:pathData="M9,0L9,108"
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />
    <path
        android:fillColor="#00000000"
        android:pathData="M19,0L19,108"
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />
    <path
        android:fillColor="#00000000"
        android:pathData="M29,0L29,108"
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />
    <path
        android:fillColor="#00000000"
        android:pathData="M39,0L39,108"
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />
    <path
        android:fillColor="#00000000"
        android:pathData="M49,0L49,108"
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />
    <path
        android:fillColor="#00000000"
        android:pathData="M59,0L59,108"
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />
    <path
        android:fillColor="#00000000"
        android:pathData="M69,0L69,108"
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />
    <path
        android:fillColor="#00000000"
        android:pathData="M79,0L79,108"
        android:strokeWidth="0.8"
```

```
        android:strokeColor="#33FFFFFF" />
    <path
        android:fillColor="#00000000"
        android:pathData="M89,0L89,108"
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />
    <path
        android:fillColor="#00000000"
        android:pathData="M99,0L99,108"
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />
    <path
        android:fillColor="#00000000"
        android:pathData="M0,9L108,9"
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />
    <path
        android:fillColor="#00000000"
        android:pathData="M0,19L108,19"
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />
    <path
        android:fillColor="#00000000"
        android:pathData="M0,29L108,29"
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />
    <path
        android:fillColor="#00000000"
        android:pathData="M0,39L108,39"
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />
    <path
        android:fillColor="#00000000"
        android:pathData="M0,49L108,49"
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />
    <path
        android:fillColor="#00000000"
        android:pathData="M0,59L108,59"
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />
    <path
        android:fillColor="#00000000"
        android:pathData="M0,69L108,69"
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />
    <path
        android:fillColor="#00000000"
        android:pathData="M0,79L108,79"
```

```
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />
<path
    android:fillColor="#00000000"
    android:pathData="M0,89L108,89"
    android:strokeWidth="0.8"
    android:strokeColor="#33FFFFFF" />
<path
    android:fillColor="#00000000"
    android:pathData="M0,99L108,99"
    android:strokeWidth="0.8"
    android:strokeColor="#33FFFFFF" />
<path
    android:fillColor="#00000000"
    android:pathData="M19,29L89,29"
    android:strokeWidth="0.8"
    android:strokeColor="#33FFFFFF" />
<path
    android:fillColor="#00000000"
    android:pathData="M19,39L89,39"
    android:strokeWidth="0.8"
    android:strokeColor="#33FFFFFF" />
<path
    android:fillColor="#00000000"
    android:pathData="M19,49L89,49"
    android:strokeWidth="0.8"
    android:strokeColor="#33FFFFFF" />
<path
    android:fillColor="#00000000"
    android:pathData="M19,59L89,59"
    android:strokeWidth="0.8"
    android:strokeColor="#33FFFFFF" />
<path
    android:fillColor="#00000000"
    android:pathData="M19,69L89,69"
    android:strokeWidth="0.8"
    android:strokeColor="#33FFFFFF" />
<path
    android:fillColor="#00000000"
    android:pathData="M19,79L89,79"
    android:strokeWidth="0.8"
    android:strokeColor="#33FFFFFF" />
<path
    android:fillColor="#00000000"
    android:pathData="M29,19L29,89"
    android:strokeWidth="0.8"
    android:strokeColor="#33FFFFFF" />
<path
    android:fillColor="#00000000"
```

```

        android:pathData="M39,19L39,89"
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />
    <path
        android:fillColor="#00000000"
        android:pathData="M49,19L49,89"
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />
    <path
        android:fillColor="#00000000"
        android:pathData="M59,19L59,89"
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />
    <path
        android:fillColor="#00000000"
        android:pathData="M69,19L69,89"
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />
    <path
        android:fillColor="#00000000"
        android:pathData="M79,19L79,89"
        android:strokeWidth="0.8"
        android:strokeColor="#33FFFFFF" />
</vector>

```

spinner_background.xml

```

<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android">
    <solid android:color="@android:color/white"/>
    <corners android:radius="10dp"/>
    <stroke android:width="2dp" android:color="@android:color/holo_blue_light"/>
</shape>

```

This XML defines a drawable shape with the following characteristics:

- It has a white solid fill.
- It has rounded corners with a 10 dp radius.
- It has a 2 dp wide border with a light blue color.

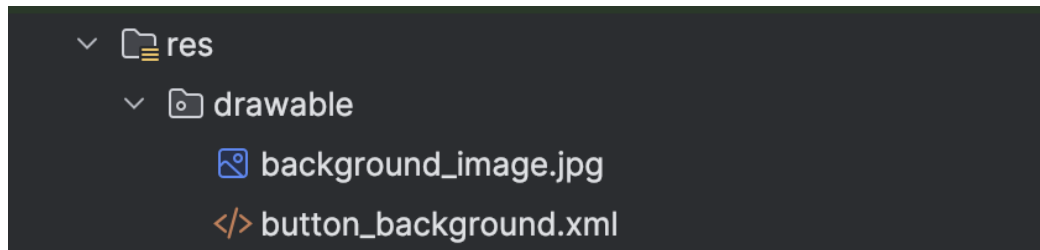
quota_background.xml

```

<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android">
    <solid android:color="@android:color/white"/>
    <corners android:radius="10dp"/>
    <stroke
        android:width="2dp"
        android:color="@android:color/holo_blue_light"/>
</shape>

```

Image :



Customized background is made using jpg image in res/drawable.

MainActivity.kt

```
package com.example.assignment1

import android.content.Intent
import android.os.Bundle
import android.view.View
import android.widget.AdapterView
import android.widget.AdapterView.OnItemClickListener
import android.widget.ArrayAdapter
import android.widget.Button
import android.widget.Spinner
import android.widget.TextView
import android.appcompat.app.AppCompatActivity

class MainActivity : AppCompatActivity() {

    lateinit var themeSpinner: Spinner
    lateinit var shareQuoteBtn: Button
    lateinit var quoteTextView: TextView
    lateinit var selectedTheme: String

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        themeSpinner = findViewById(R.id.themeSpinner)
        shareQuoteBtn = findViewById(R.id.shareQuoteBtn)
        quoteTextView = findViewById(R.id.quoteTextView)

        // Setup the Spinner
        val themes = arrayOf("Inspirational", "Motivational", "Funny", "Life", "Love")
        val adapter = ArrayAdapter(this, android.R.layout.simple_spinner_item, themes)

        adapter.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item)
        themeSpinner.adapter = adapter
        themeSpinner.setPrompt("What type of Quote do you want??");
    }
}
```

```

        // Spinner Item Selected Listener
        themeSpinner.onItemSelectedListener = object :
AdapterView.OnItemSelectedListener {
            override fun onItemSelected(parent: AdapterView<*>, view: View?,
position: Int, id: Long) {
                selectedTheme = themes[position]
                displayQuote(selectedTheme)
            }

            override fun onNothingSelected(parent: AdapterView<*>) {
                // Do nothing
            }
        }

        // Button Click Listener
        shareQuoteBtn.setOnClickListener {
            val intent = Intent(android.content.Intent.ACTION_SEND);
            intent.setType("text/plain");
            intent.putExtra(android.content.Intent.EXTRA_TEXT,
quoteTextView.text);
            intent.putExtra(android.content.Intent.EXTRA_SUBJECT, "Quote Share")
            this.startActivity(Intent.createChooser(intent, "Share"));
        }
    }

    private fun displayQuote(theme: String) {
        val quotes = mapOf(
            "Inspirational" to "The best way to predict the future is to create
it.",
            "Motivational" to "Don't watch the clock; do what it does. Keep
going.",
            "Funny" to "I'm not arguing, I'm just explaining why I'm right.",
            "Life" to "Life is what happens when you're busy making other
plans.",
            "Love" to "Love is not about how much you say 'I love you' but how
much you prove that it's true."
        )
        quoteTextView.text = quotes[theme]
    }
}

```

For the Set up Spinner section: Here, an ArrayAdapter is created with the themes array and set to the Spinner. The Spinner's prompt is also set.

Spinner Item Selected Listener : An anonymous inner class is created to handle item selection events on the Spinner. When an item is selected, it sets `selectedTheme` and calls `displayQuote` with the selected theme.

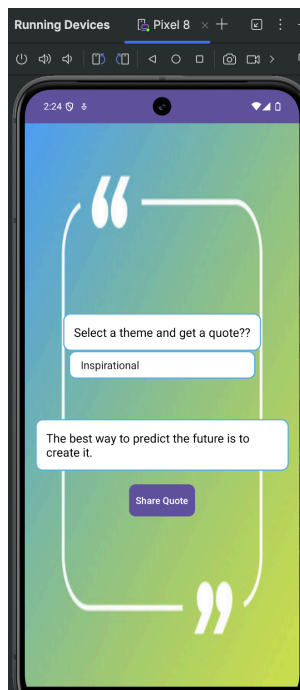
For button Click Listener : An OnClickListener is set on the button. When clicked, it creates an Intent to share the text from `quoteTextView` and starts an activity to choose an app to share the quote.

Summary

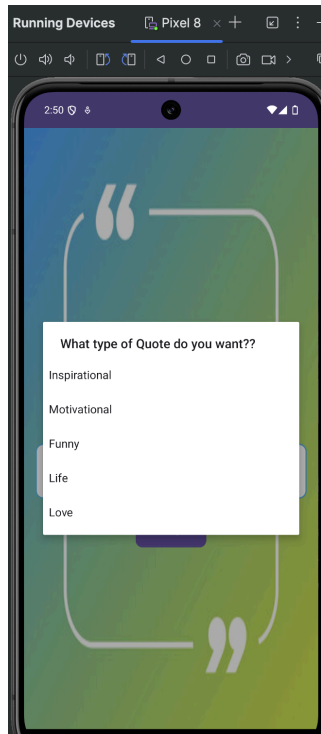
- The activity allows users to select a quote theme from a Spinner.
- When a theme is selected, the corresponding quote is displayed in a TextView.
- A Button allows users to share the displayed quote via an external sharing intent.

Output:

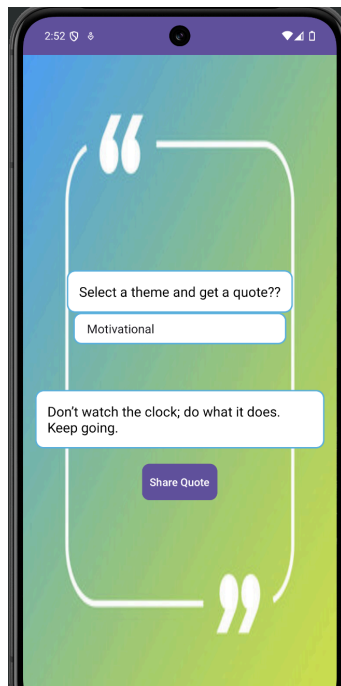
Main page :



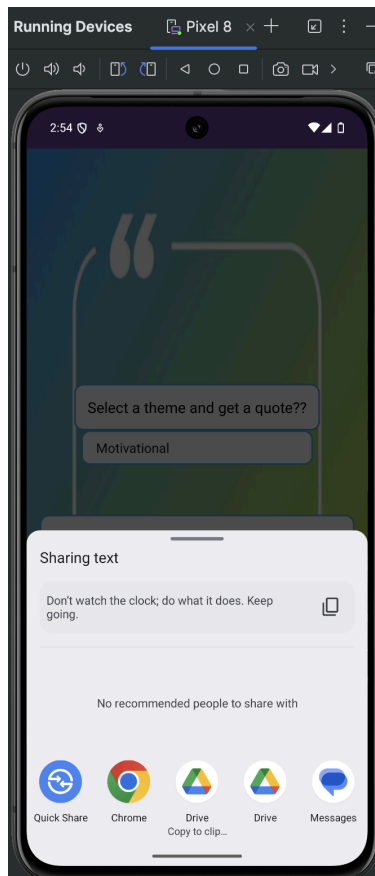
On choosing theme, below options are shown (using Spinner) :



Example, when choosing "Motivational" theme, the quote is shown :



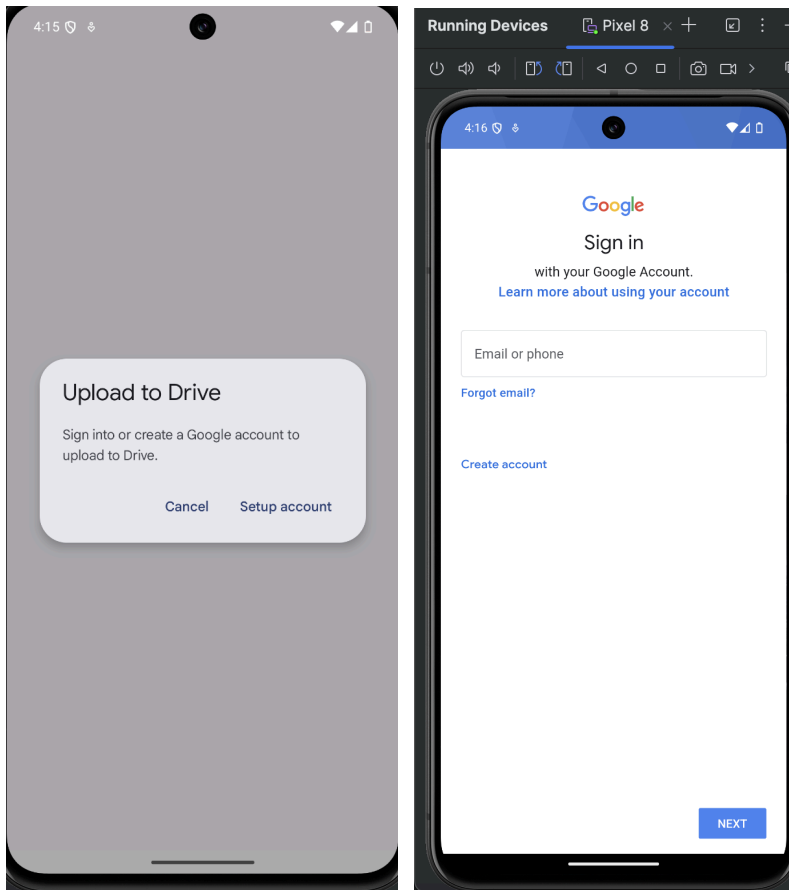
Nextly, on clicking Quote button :



On selecting Messages View changed to select contact whom to share quote directly from application (View1) :



On selecting Drive option, it changes display to login to the Drive (View2) :



Searching for Bluetooth device on selecting bluetooth to share quote (View3) :

