Web page Display

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Objective:

- Develop an android application to display a static web page with contents that uses all formatting HTML tags.
- Also should load the web page from the specified URL.
-

Android widgets and layouts used:

- Linear layout (linear and horizontal)
- Space
- Button
- TextView
- EditText
- WebView

Code:

activity_main.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"
   xmlns:tools="http://schemas.android.com/tools"
   android:layout_width="match_parent"
   android:layout_height="match_parent"
   android:padding="10dp"
   tools:context=".MainActivity">

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

       <LinearLayout
           android:layout_width="match_parent"
           android:layout_height="wrap_content"
           android:orientation="horizontal">

           <TextView
               android:id="@+id/textView"
               android:layout_width="60dp"
               android:layout_height="wrap_content"
```

```
                android:paddingBottom="10dp"
                android:paddingLeft="15dp"
                android:textStyle="bold"
                android:text="URL:" />

            <EditText
                android:id="@+id/url"
                android:layout_width="237dp"
                android:layout_height="wrap_content"
                android:layout_weight="1"
                android:ems="10"
                android:inputType="text" />

            <Button
                android:id="@+id/load"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:layout_weight="1"
                android:text="GET" />
        </LinearLayout>

        <WebView
            android:id="@+id/webView"
            android:layout_width="match_parent"
            android:layout_height="match_parent">

        </WebView>
    </LinearLayout>

</LinearLayout>
```

MainActivity.java:

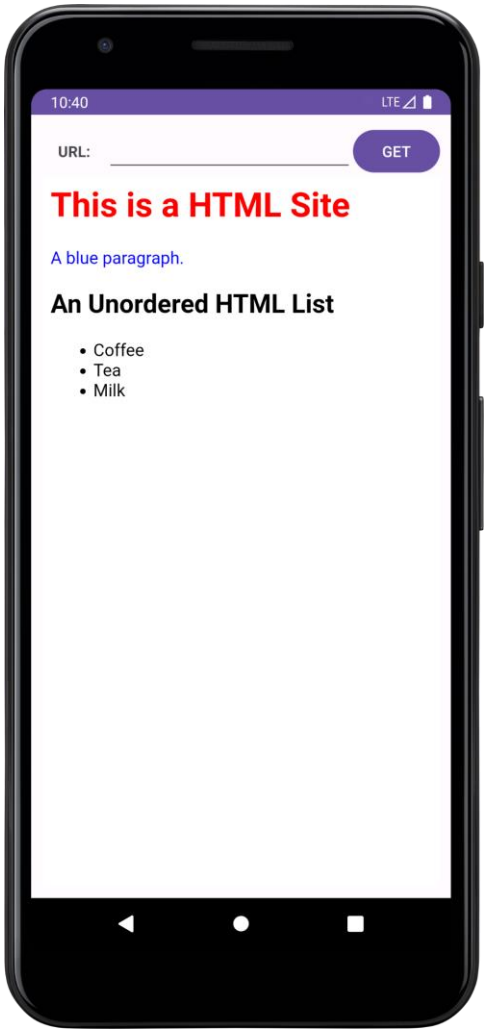
```
package com.example.hybridapp;

import androidx.appcompat.app.AppCompatActivity;

import android.annotation.TargetApi;
import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.webkit.WebResourceError;
import android.webkit.WebResourceRequest;
import android.webkit.WebSettings;
import android.webkit.WebView;
import android.webkit.WebViewClient;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
```

```
public class MainActivity extends AppCompatActivity {

   private WebView webView;
   private EditText url;
   private Button getButton;

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

        webView = findViewById(R.id.webView);
        url = findViewById(R.id.url);
        getButton = findViewById(R.id.load);

        webView.getSettings().setJavaScriptEnabled(true);

        // Load static HTML content
        String staticHtml = "<html>\n" +
                "<body>\n" +
                "\n" +
                "<h1 style=\"color:red; font-family:sans-serif\">This is a HTML
Site</h1>\n" +
                "\n" +
                "<p style=\"color:blue;\">A blue paragraph.</p>\n" +
                "\n" +
                "<h2>An Unordered HTML List</h2>\n" +
                "\n" +
                "<ul>\n" +
                "  <li>Coffee</li>\n" +
                "  <li>Tea</li>\n" +
                "  <li>Milk</li>\n" +
                "</ul>\n" +
                "\n" +
                "</body>\n" +
                "</html>";
        webView.loadData(staticHtml, "text/html", "UTF-8");

        webView.setWebViewClient(new WebViewClient()
        {
             @Override
            public boolean shouldOverrideUrlLoading(WebView view, String url)
            {
                //view.loadUrl(url);
                System.out.println("hello");
                return false;
            }
        });
```

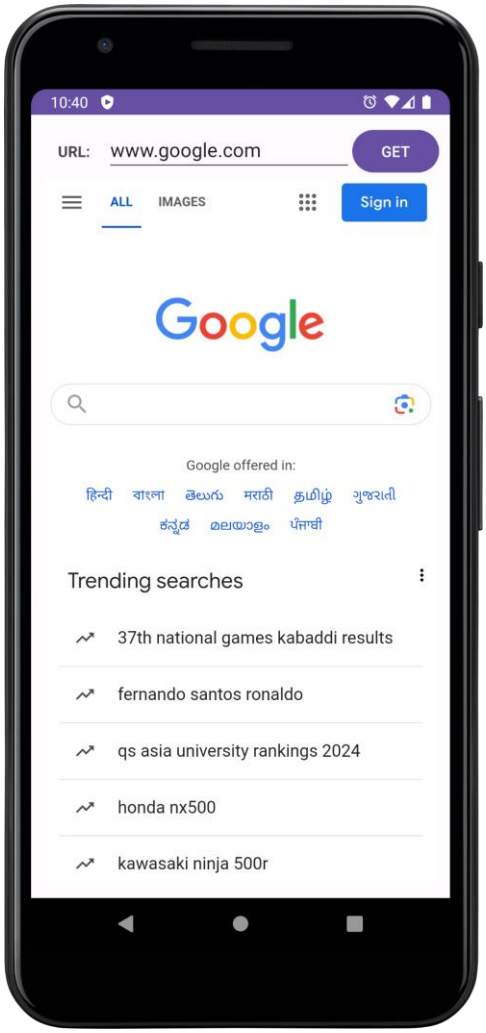
```
        getButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                webView.loadUrl("https://" + url.getText().toString());
            }
        });
    }
}
```

Output:

Default site:



Specified URL:



Best Practices:

1. Followed proper naming convention and used camel case for variable names.
2. Meaningful comments are included
3. User-friendly navigation
4. Providing different fonts to show separation and emphasis for titles.

5. Colors are used with valid contrast for readability
6. Usage of Data Binding.

Learning Outcomes:

1. I learned how to insert WebView into android app.
2. I learned how to include a webpage using static HTML code.
3. I learned how to display a webpage in android app.
4. Implemented application for loading website using specified URL.