

Lab Report 1 : My ID Card

Course Title: Mobile Application Development

Course Code: CSE-410



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GitHub Repository:

You can find the repository at the following link:

https://github.com/RubayedMunna/Android-Lab/tree/main/Lab_2

Code:

activity_main.xml

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/
android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:orientation="vertical"
    android:padding="16dp">
    <TextView
        android:id="@+id/destination_label"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/select_destination"
        android:textSize="18sp"
        android:layout_gravity="center_horizontal"
        android:paddingBottom="8dp"
        android:layout_marginTop="40dp"/>

    <Spinner
        android:id="@+id/destination_spinner"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:layout_marginTop="40dp"
        android:layout_margin="16dp"
        android:entries="@array/destinations"/>

    <Button
        android:id="@+id/show_hotels_button"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="@string/show_hotels"
        android:layout_marginTop="16dp"
        android:onClick="onClickFindHotel"/>

    <TextView
        android:id="@+id/hotel_info_label"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
```

```
        android:text="@string/hotel_list"
        android:textSize="18sp"
        android:layout_gravity="center_horizontal"
        android:paddingTop="16dp"/>

<ScrollView
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="0dp"
    android:layout_weight="1"
    android:padding="16dp">

    <androidx.cardview.widget.CardView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="16dp"
        android:layout_marginBottom="16dp"
        android:elevation="4dp"
        app:cardCornerRadius="8dp"
        app:cardBackgroundColor="@android:color/white">

        <TextView
            android:id="@+id/hotel_details"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="@string/hotels"
            android:textSize="16sp"
            android:padding="16dp"
            android:textColor="@android:color/black"
            android:lineSpacingExtra="4dp"
            android:background="@drawable/textview_background"
            />
    </androidx.cardview.widget.CardView>
</ScrollView>
</LinearLayout>
```

Listing 1: activity_main.xml

MainActivity.java

```
package com.example.hotel_information_system;

import android.os.Bundle;
import android.view.View;
import android.widget.ArrayAdapter;
import android.widget.Button;
import android.widget.Spinner;
import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;
```

```

import java.util.HashMap;
import java.util.Map;

public class MainActivity extends AppCompatActivity {

    private Spinner destinationSpinner;
    private Button showHotelsButton;
    private TextView hotelDetails;

    // Data for hotels
    private Map<String, String[]> hotelData;

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

        destinationSpinner = findViewById(R.id.destination_spinner);
        showHotelsButton = findViewById(R.id.show_hotels_button);
        hotelDetails = findViewById(R.id.hotel_details);

        // Sample data for tourist destinations and their hotels
        String[] destinations = {"New York", "Paris", "Tokyo", "Dubai"};
    };

    hotelData = new HashMap<>();
    hotelData.put("New York", new String[]{
        "Artezen Hotel \n24 John Street, New York, NY 10038,
United States \n$188.10",
        "LUMA Hotel \n120 West 41st Street, New York, NY
10036-7315, United States.\n$475",
        "NobleDEN Hotel \n196 Grand Street, Little Italy, New
York, NY 10013, United States \n$284",
        "Hotel Scherman \n346 West 46th Street, Hell's Kitchen,
New York, NY 10036, United States \n$249",
        "The Hotel Chelsea \n222 West 23rd Street, Chelsea, New
York, NY 10011, United States \n$468",
        "The Wallace Hotel \n242 West 76th Street, Upper West
Side, New York, NY 10023, United States \n$458.10",
        "Mint House \n70 Pine Street, New York, NY 10005,
United States \n$376"
    });
    hotelData.put("Paris", new String[]{
        "Mode Paris Aparthotel \n4 Rue Leroux, 16th arr., 75116
Paris, France \n$301",
        "Drawing House \n21 Rue Vercing torix, 14th arr.,
75014 Paris, France \n$305",
        "Maison Albar - Le Diamond \n4, rue de la P pini re ,
8th arr., 75008 Paris, France \n$480",
        "Sofitel Paris Arc De Triomphe \n14 Rue Beaujon, 8th
arr., 75008 Paris, France \n$370",
        "Sofitel Paris Arc De Triomphe \n14 Rue Beaujon, 8th
arr., 75008 Paris, France \n$364",
        "Le Basile H tel \n23 rue Godot de Mauroy, 9th arr.,
75009 Paris, France \n$458",
        "H tel Chamar \n35, Rue La Bruy re , 9th arr., 75009
Paris, France \n$295"
    });
}

```

```

});
hotelData.put("Tokyo", new String[]{
    "Tokyo Bay Shiomi Prince Hotel \n135-0052 Tokyo-to,
Koto-ku Shiomi 2-8-16, Japan \n$280",
    "THE BLOSSOM HIBIYA \n105-0004 Tokyo-to, Shinbashi
1-1-13, Japan \n$258",
    "The Okura Tokyo \n105-0001 Tokyo-to, Minato-ku
Toranomom 2-10-4, Japan \n$323",
    "MIMARU Tokyo Hatchobori \n103-0025 Tokyo-to, 3-8-8
NIhombashi Kayabacho, Chuo-ku, Japan\n$286",
    "Imperial Hotel Tokyo \n100-8558 Tokyo-to, Chiyoda-ku
Uchisaiwai-cho 1-1-1, Japan \n$254",
    "The Tokyo Station Hotel \n100-0005 Tokyo-to, Chiyoda-
ku Marunouchi 1-9-1, Japan \n$199",
});
hotelData.put("Dubai", new String[]{
    "Jumeirah Burj Al Arab Dubai \nJumeirah Beach Road,
Dubai, United Arab Emirates \n$750",
    "One&Only One Za'abeel, \nZa'abeel Street Za'abeel 1 -
Level 25, Trade Centre, Dubai, United Arab Emirates, \n$805.10",
    "Kempinski The Boulevard Dubai \nSheikh Mohamed Bin
Rashid Boulevard, Downtown Dubai, PO Box 214477, Downtown Dubai,
214477 Dubai, United Arab Emirates \n$799.50",
    "The Lana - Dorchester Collection, \nMarasi Drive Burj
Khalifa District, Dubai, United Arab Emirates \n$785",
    "Mandarin Oriental Jumeira \n1 Jumeirah Street Jumeirah
Beach Road, Jumeirah, Dubai, United Arab Emirates \n$849",
    "Shangri-La Dubai, \nSheikh Zayed Road, Trade Centre,
Dubai, United Arab Emirates \n$825",
});

// Populate the spinner with destinations
ArrayAdapter<String> adapter = new ArrayAdapter<>(this, android
.R.layout.simple_spinner_item, destinations);
adapter.setDropDownViewResource(android.R.layout.
simple_spinner_dropdown_item);
destinationSpinner.setAdapter(adapter);

// Set up button click listener
showHotelsButton.setOnClickListener(new View.OnClickListener()
{
    @Override
    public void onClick(View v) {
        String selectedDestination = destinationSpinner.
getSelectedItem().toString();
        showHotels(selectedDestination);
    }
});

private void showHotels(String destination) {
    String[] hotels = hotelData.get(destination);
    if (hotels != null) {
        StringBuilder details = new StringBuilder();
        for (String hotel : hotels) {
            details.append(hotel).append("\n\n");
        }
        hotelDetails.setText(details.toString().trim());
    }
}

```

```
        } else {  
            hotelDetails.setText("No hotels available for this  
destination.");  
        }  
    }  
}
```

Listing 2: MainActivity.java

strings.xml

```
<resources>  
    <string name="app_name">Hotel_Information_System</string>  
    <string name="show_hotels">Show Hotels</string>  
    <string name="hotels">No hotel is selected</string>  
    <string name="select_destination">Select a City</string>  
    <string name="hotel_list">Available Hotels</string>  
  
    <string-array name="destinations">  
        <item>New York</item>  
        <item>Paris</item>  
        <item>Tokyo</item>  
        <item>Dubai</item>  
    </string-array>  
</resources>
```

Listing 3: strings.xml

textview_background.xml

```
<shape xmlns:android="http://schemas.android.com/apk/res/android"  
    >  
    <solid android:color="@android:color/white" />  
    <corners android:radius="8dp" />  
    <stroke  
        android:width="2dp"  
        android:color="@android:color/darker_gray" />  
</shape>
```

Listing 4: textview_background.xml

Output:

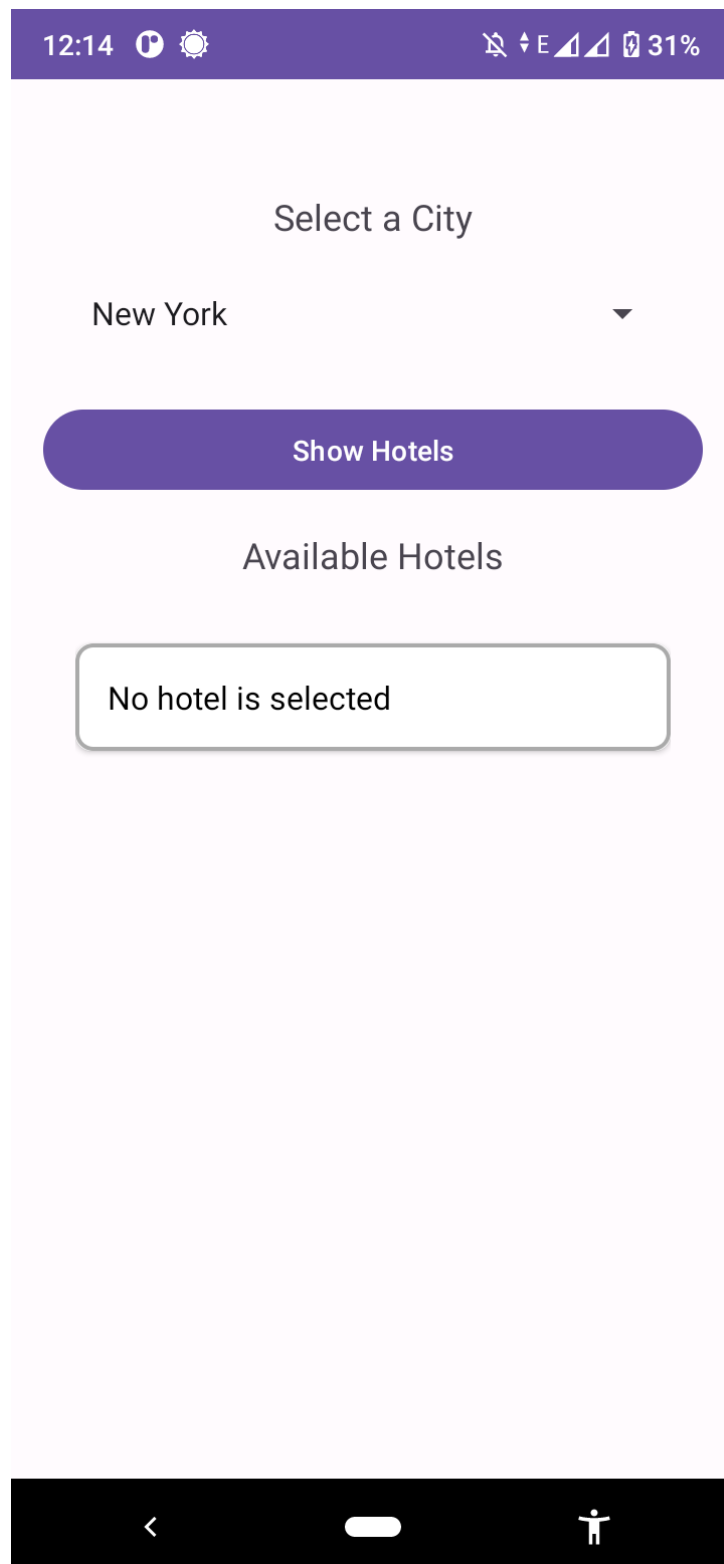


Figure 1: Before selecting a city

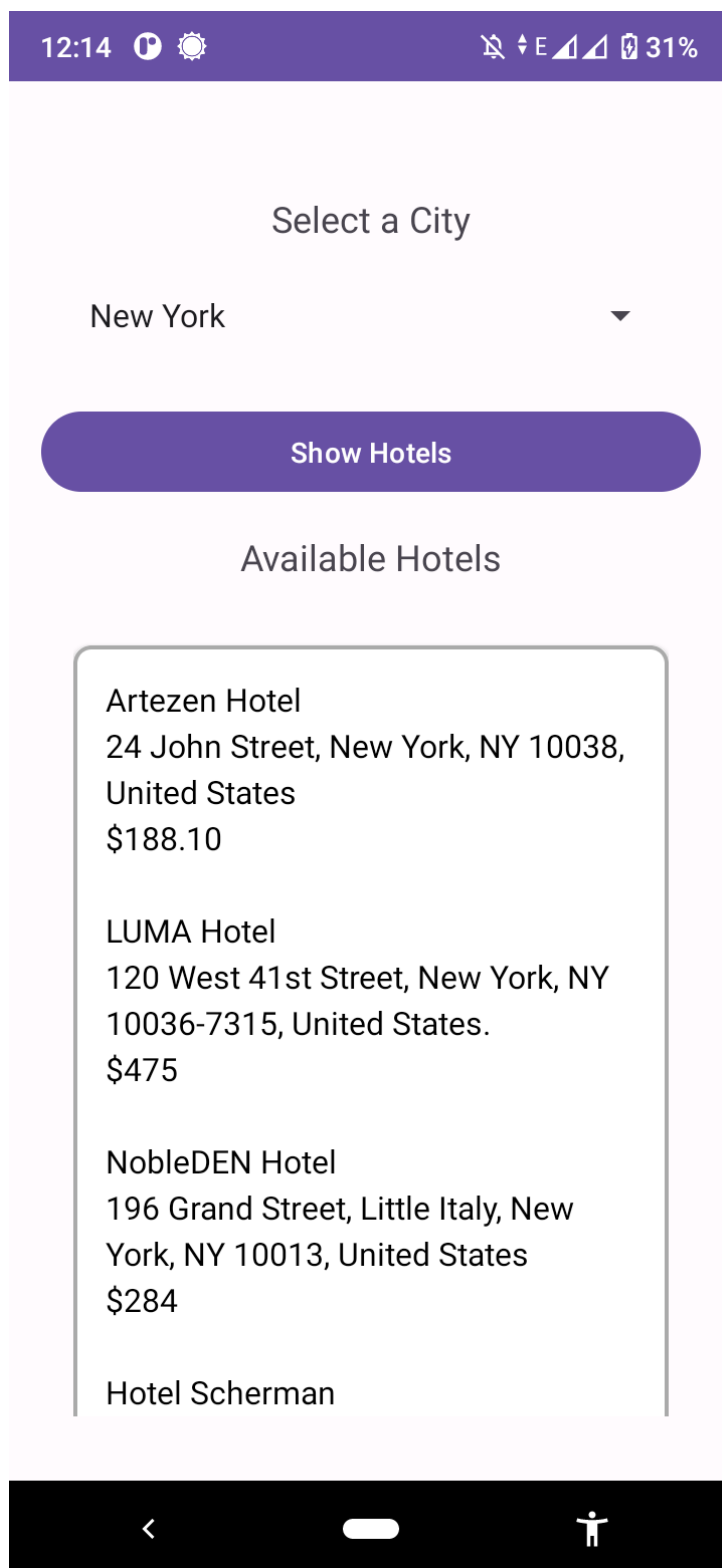


Figure 2: New York Hotels

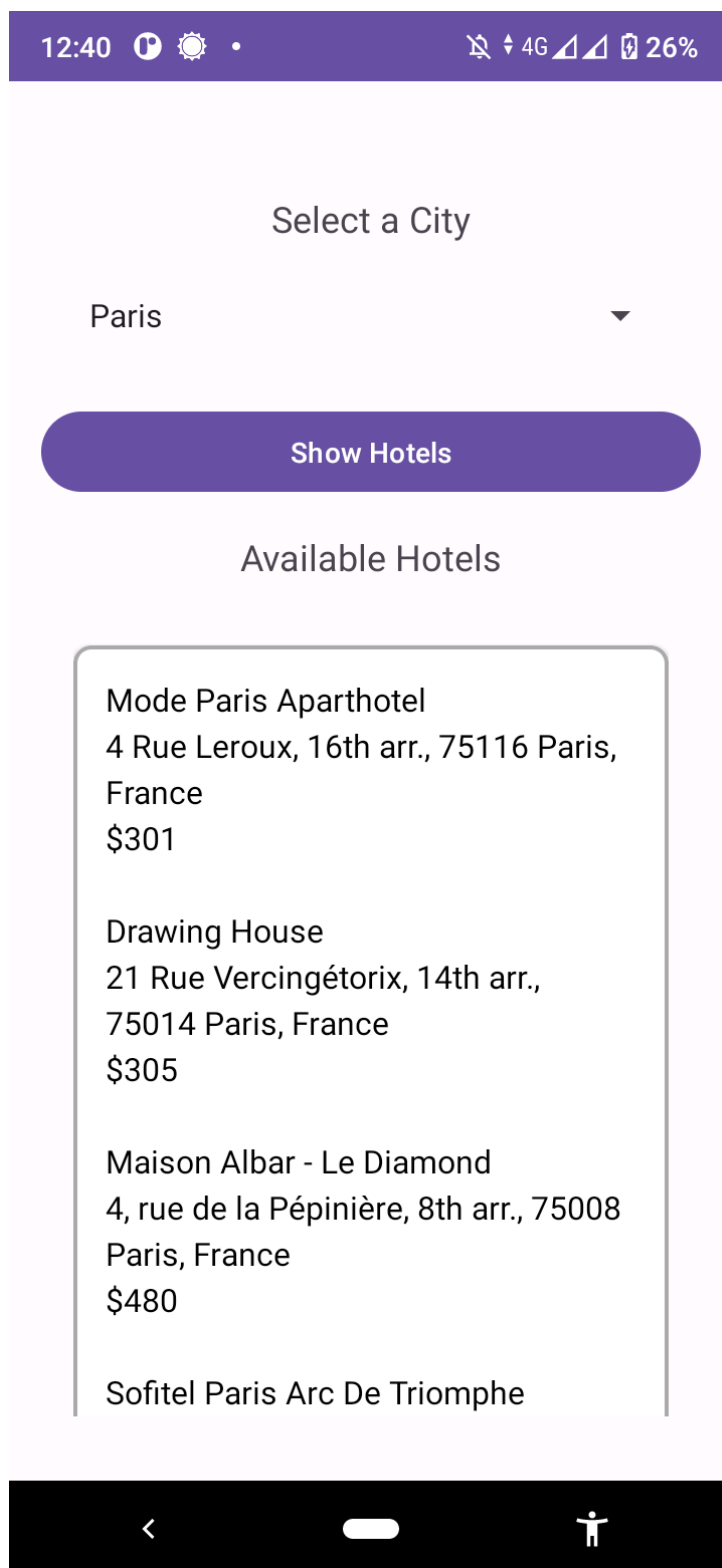


Figure 3: Paris Hotels

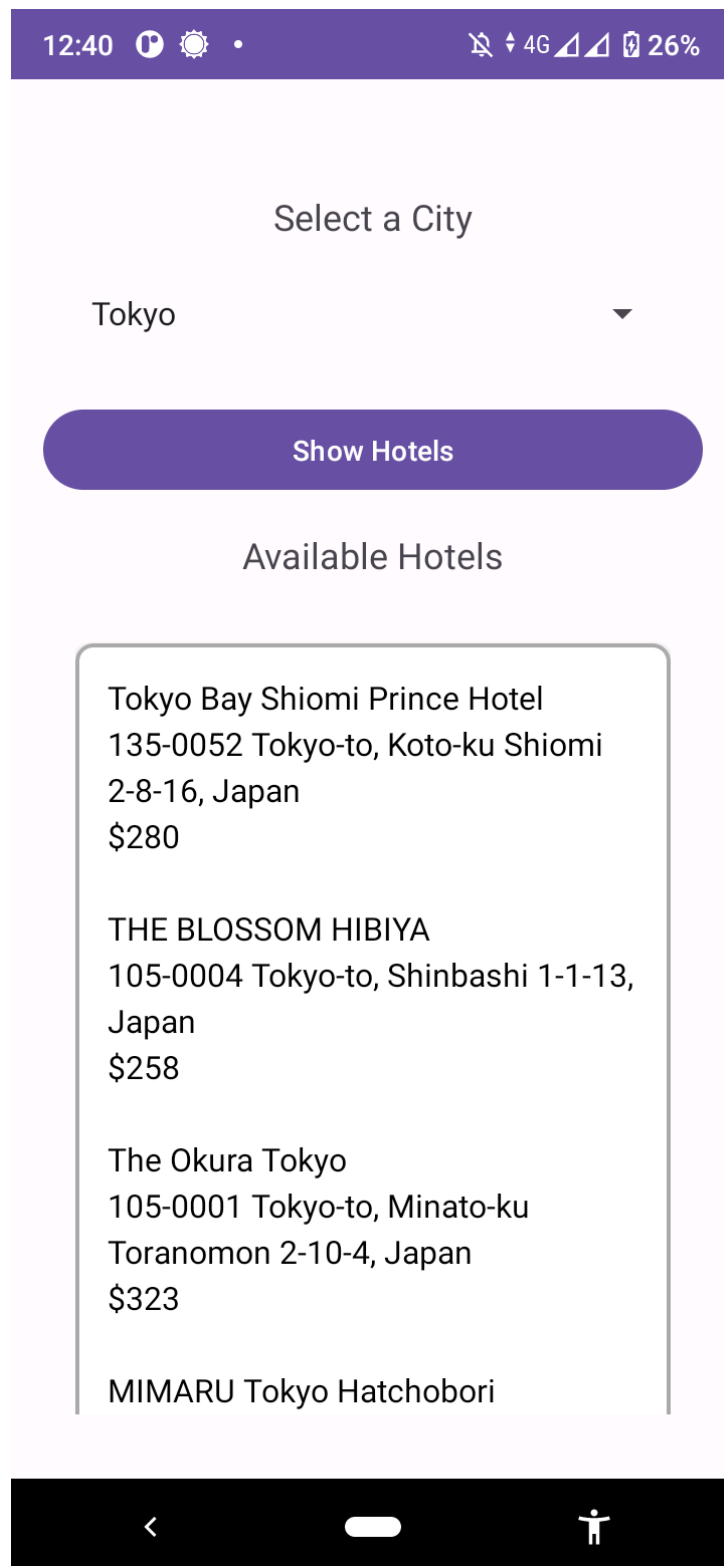


Figure 4: Tokyo Hotels

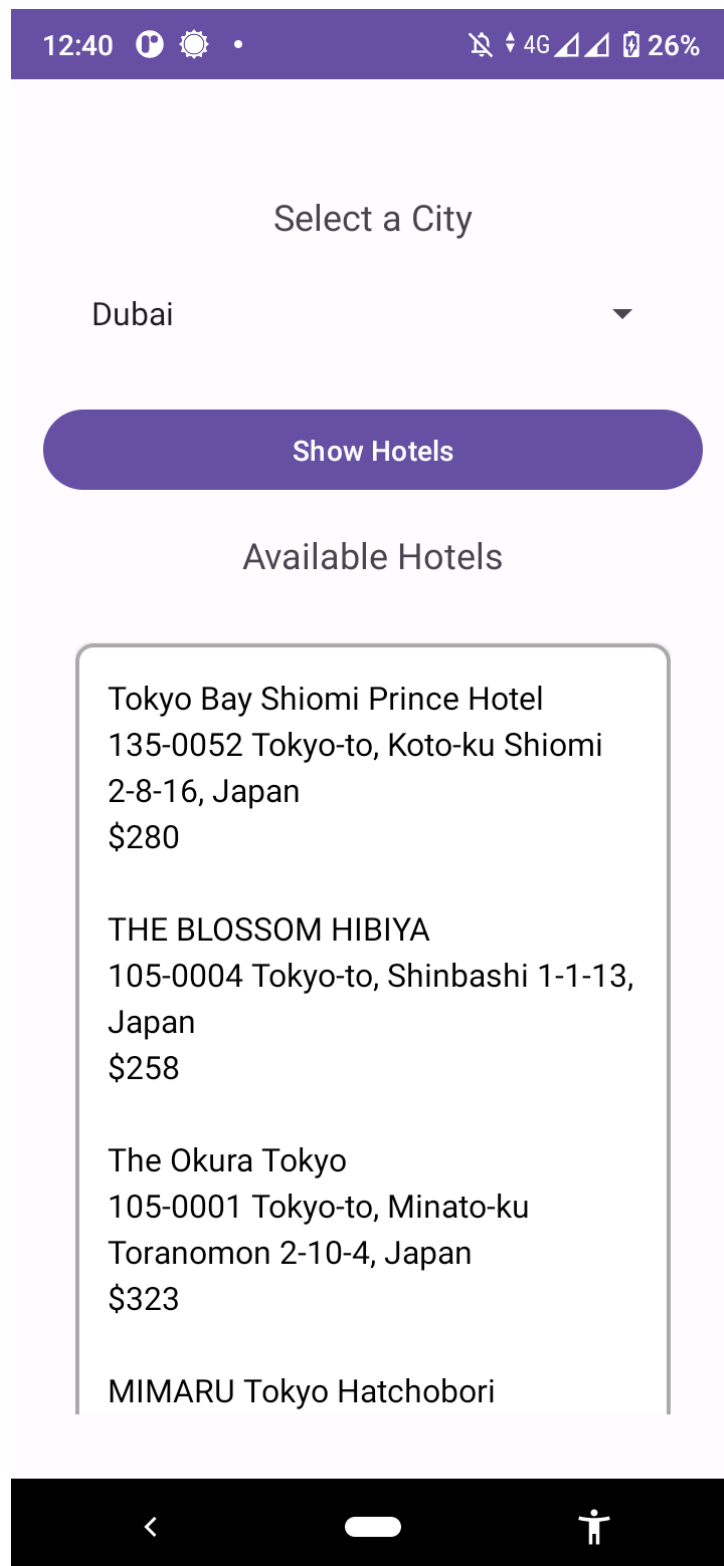


Figure 5: Dubai Hotels