Software for Mobile Devices
Class Activates

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Section: BCS 6B
Submission on: February 13, 2025

Task 1:Custom adapter

```java
package com.example.myapplication;

import android.content.Context;
import android.view.View;
import android.view.ViewGroup;
import  android.widget.ListView;
import  android.widget.TextView;
import android.view.LayoutInflater;
import android.widget.BaseAdapter;
import android.text.Layout;


import java.util.List;


public class customAdapter extends BaseAdapter {
    private final Context context;
    private  final List<DataItem> dataItems;
    private ViewHolder holder;


    public customAdapter(Context context, List<DataItem> dataItems) {
        this.context = context;
        this.dataItems = dataItems;
    }

    @Override
    public int getCount()
    {
        return dataItems.size();
    }


    @Override
    public DataItem getItem(int position )
    {
        return dataItems.get(position);

    }

    @Override
    public  long getItemId(int position){return  position;}



    @Override
    public View getView(int position, View convertView, ViewGroup parent)
    {
        if(convertView==null)
        {
convertView=LayoutInflater.from(context).inflate(R.layout.activity_main2,pare
```

```
nt,false);
            holder=new ViewHolder();
            holder.keyTextView=convertView.findViewById(R.id.textView1);
            holder.valueTextView=convertView.findViewById(R.id.textView2);
            convertView.setTag(holder);

        }
        else {
            holder=(ViewHolder) convertView.getTag();
        }
        DataItem item=getItem(position);
        holder.keyTextView.setText(item.getKey());
        holder.valueTextView.setText(item.getValue());

        return  convertView;
    }

  static class ViewHolder
    {
        TextView keyTextView;
        TextView valueTextView;
    }

}
```

Dataitem

```
package com.example.myapplication;

public class DataItem {
private  final String key;
private  final String value;

    public DataItem(String key, String value) {
        this.key = key;
        this.value = value;
    }

    public String getKey() {
        return key;
    }

    public String getValue() {
        return value;
    }
}
```

Main acitivity

```java
package com.example.myapplication;

import android.os.Bundle;
import android.widget.ListView;
import android.widget.Toast;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;


import java.util.ArrayList;
import java.util.HashMap;
import java.util.List;
import java.util.Map;



public class MainActivity extends AppCompatActivity {

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

//creating a hashmap
        HashMap<String,String>dataMap=new HashMap<>();
                dataMap.put("Name","Shaban");
                dataMap.put("Email","shaban@domain.com");
                dataMap.put("Phone","03322220003");
        List<DataItem> DataItems =new ArrayList<>();
        for (Map.Entry<String,String>entry:dataMap.entrySet())
        {
            DataItems.add(new DataItem(entry.getKey(),entry.getValue()));

        }

//      inialize
        customAdapter adapter = new customAdapter(this, DataItems);

        ListView listView = findViewById(R.id.listView);
        listView.setAdapter(adapter);


        listView.setOnItemClickListener((parent,view,position,id)->{
            DataItem selectedItem=adapter.getItem(position);
            showToast("Selected: "+selectedItem.getKey());

        });
```

```java
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main),
(v, insets) -> {
            Insets systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
            return insets;
        });
    }

    private void showToast(String s) {
        Toast.makeText(this,s,Toast.LENGTH_SHORT).show();


    }
}
```

Main activity 2

```java
package com.example.myapplication;

import android.os.Bundle;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class MainActivity2 extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity_main2);
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main),
(v, insets) -> {
            Insets systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
            return insets;
        });
```
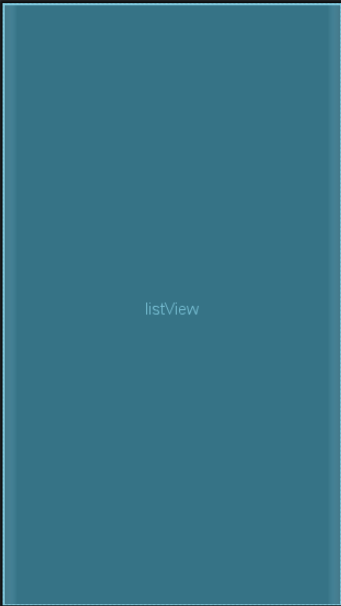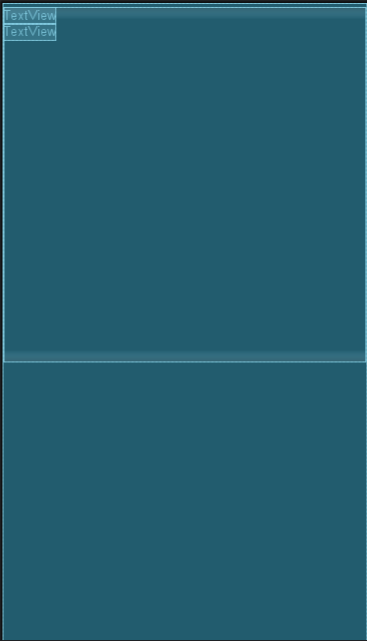
Item 1	
Sub Item 1	
Item 2	
Sub Item 2	
Item 3	
Sub Item 3	
Item 4	
Sub Item 4	
Item 5	
Sub Item 5	
Item 6	
Sub Item 6	
Item 7	
Sub Item 7	
Item 8	
Sub Item 8	
Item 9	
Sub Item 9	
Item 10	
Sub Item 10	
Item 11	
Sub Item 11	

listView

TextView
TextView

TextView
TextView

```
    }
}
```

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