

HistoryList.java

```
package com.example.cashregister;

import androidx.appcompat.app.AppCompatActivity;
import androidx.recyclerview.widget.LinearLayoutManager;
import androidx.recyclerview.widget.RecyclerView;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.view.WindowManager;
import android.widget.Toast;

import java.util.ArrayList;

public class HistoryList extends AppCompatActivity {
    private ArrayList<SoldItem> soldItemList = new ArrayList<>();
    private ArrayList<Item> itemList = new ArrayList<>();
    RecyclerView recyclerView;
    ItemRecyclerViewAdapter adapter;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);

        getSupportActionBar().setDisplayHomeAsUpEnabled(true);
        setContentView(R.layout.activity_history_list);

        getSupportActionBar().hide(); //hide actionbar
        getWindow().setFlags(WindowManager.LayoutParams.FLAG_FULLSCREEN,
WindowManager.LayoutParams.FLAG_FULLSCREEN);
        recyclerView = (RecyclerView) findViewById(R.id.recyclerView);
        soldItemList =
this.getIntent().getExtras().getParcelableArrayList("soldItemList");

        itemList=this.getIntent().getExtras().getParcelableArrayList("itemList");
        soldItemList.forEach(item -> {
            System.out.println(item.getDateSold());
        });
        // if(getIntent().hasExtra("bundle")) {
        //
        //         Bundle bundle =getIntent().getBundleExtra("bundle");
        //         soldItemList = bundle.getParcelableArrayList("soldItemList");
        //
        //     }

        recyclerView.setLayoutManager(new LinearLayoutManager(this));
        adapter = new ItemRecyclerViewAdapter(soldItemList, this, new
ItemRecyclerViewAdapter.OnItemClickListener() {
            @Override
            public void onItemClick(SoldItem item) {
                goToSoldItemDetail(item);
            }
        });
        recyclerView.setAdapter(adapter);
    }
}
```

```

    public void goToSoldItemDetail(SoldItem item) {
        System.out.println(item.dateSold);
        Intent myIntent = new Intent(this, SoldItemDetail.class);
        Bundle bundle = new Bundle();
        bundle.putParcelableArrayList("itemList", itemList);
        bundle.putParcelableArrayList("soldItemList", soldItemList);
        myIntent.putExtra("soldItemDetail", item);
        myIntent.putExtras(bundle);
        startActivity(myIntent);
    }

    public void backFunction(View v){
        Intent myIntent = new Intent(this, ManagementPanel.class);
        Bundle bundle = new Bundle();
        bundle.putParcelableArrayList("itemList", itemList);
        bundle.putParcelableArrayList("soldItemList", soldItemList);
        myIntent.putExtras(bundle);
        startActivity(myIntent);
    }
}

```

Item.java

```

package com.example.cashregister;

import android.os.Parcel;
import android.os.Parcelable;

public class Item implements Parcelable {
    private String name;
    private int quantity;
    private double unitPrice;

    public Item(String name, int quantity, double price) {
        this.name = name;
        this.quantity = quantity;
        this.unitPrice = price;
    }

    protected Item(Parcel in) {
        name = in.readString();
        unitPrice = in.readDouble();
        quantity = in.readInt();
    }

    public static final Creator<Item> CREATOR = new Creator<Item>() {
        @Override
        public Item createFromParcel(Parcel in) {
            return new Item(in);
        }

        @Override
        public Item[] newArray(int size) {
            return new Item[size];
        }
    }
}

```

```

    }
};

public String getName() {
    return name;
}

public void setName(String name) {
    this.name = name;
}

public int getQuantity() {
    return quantity;
}

public void setQuantity(int quantity) {
    this.quantity = quantity;
}

public void sellAmount(int quantity){
    this.quantity -= quantity;
}

public double getUnitPrice() {
    return unitPrice;
}

public void setUnitPrice(double unitPrice) {
    this.unitPrice = unitPrice;
}

@Override
public String toString() {
    return "Item{" +
        "name='" + name + '\'' +
        ", quantity=" + quantity +
        ", unitPrice=" + unitPrice +
        '}';
}

@Override
public int describeContents() {
    return 0;
}

@Override
public void writeToParcel(Parcel parcel, int flags) {
    parcel.writeString(name);
    parcel.writeDouble(unitPrice);
    parcel.writeInt(quantity);
}
}

```

ItemListAdapter.java

```

package com.example.cashregister;

import android.content.Context;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.ArrayAdapter;
import android.widget.TextView;

import androidx.annotation.NonNull;
import java.util.List;

public class ItemListAdapter extends ArrayAdapter<Item> {
    private Context mContext;
    private int mResource;

    public ItemListAdapter(Context context, int resource, List<Item> objects) {
        super(context, resource, objects);
        this.mContext = context;
        this.mResource = resource;
    }

    @NonNull
    @Override
    public View getView(int position, View convertView, ViewGroup parent) {
        String name = getItem(position).getName();
        double unitPrice = getItem(position).getUnitPrice();
        int quantity = getItem(position).getQuantity();

        Item item = new Item(name, quantity, unitPrice);

        LayoutInflater inflater = LayoutInflater.from(mContext);
        convertView = inflater.inflate(mResource, parent, false);

        TextView tvName = (TextView)
convertView.findViewById(R.id.textView1);
        TextView tvQuantity = (TextView)
convertView.findViewById(R.id.textView3);
        TextView tvPrice = (TextView)
convertView.findViewById(R.id.textView2);

        tvName.setText(name);
        tvQuantity.setText(String.valueOf(quantity));
        tvPrice.setText(String.valueOf(unitPrice));
        return convertView;
    }
}

```

ItemRecycleAdapter.java

```

package com.example.cashregister;

import android.annotation.SuppressLint;
import android.content.Context;

```

```

import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.TextView;

import androidx.annotation.NonNull;
import androidx.recyclerview.widget.RecyclerView;

import java.util.ArrayList;

public class ItemRecyclerAdapter extends
RecyclerView.Adapter<ItemRecyclerAdapter.ViewHolder> {
    ArrayList<SoldItem> soldItemList;
    Context mContext;

    public interface OnItemClickListener {
        void onItemClick(SoldItem item);
    }

    private final OnItemClickListener listener;

    public ItemRecyclerAdapter(ArrayList<SoldItem> soldItemList, Context
context, OnItemClickListener listener) {
        this.soldItemList = soldItemList;
        this.mContext = context;
        this.listener = listener;
    }

    public static class ViewHolder extends RecyclerView.ViewHolder {
        private TextView itemName;
        private TextView itemPrice;
        private TextView itemQuantity;

        public ViewHolder(View view) {
            super(view);
            itemName = (TextView) view.findViewById(R.id.textView4);
            itemQuantity = (TextView) view.findViewById(R.id.textView5);
            itemPrice = (TextView) view.findViewById(R.id.textView6);
        }

        public TextView getItemName() {
            return itemName;
        }

        public TextView getItemPrice() {
            return itemPrice;
        }

        public TextView getItemQuantity() {
            return itemQuantity;
        }
    }

    @NonNull
    @Override
    public ItemRecyclerAdapter.ViewHolder onCreateViewHolder(@NonNull
ViewGroup parent, int viewType) {

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        View view = LayoutInflater.from(mContext)
            .inflate(R.layout.sold_item_recycler_list, parent, false);

        return new ViewHolder(view);
    }

    @Override
    public void onBindViewHolder(@NonNull ItemRecyclerAdapter.ViewHolder
holder, @SuppressWarnings("RecyclerView") int position) {
        holder.getItemName().setText(soldItemList.get(position).getName());
        holder.getItemPrice().setText(String.format("%.2f",
soldItemList.get(position).getTotal()));

holder.getItemQuantity().setText(String.valueOf(soldItemList.get(position).ge
tQuantity()));
        holder.itemView.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                listener.onItemClicked(soldItemList.get(position));
            }
        });
    }

    @Override
    public int getItemCount() {
        return soldItemList.size();
    }
}

```

MainActivity.java

```

package com.example.cashregister;

import static java.lang.Double.parseDouble;
import static java.lang.Integer.parseInt;

import androidx.annotation.NonNull;
import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Build;
import android.os.Bundle;
import android.view.Gravity;
import android.view.View;
import android.view.WindowManager;
import android.widget.Button;
import android.widget.ListView;
import android.widget.TextView;

import com.google.android.material.snackbar.Snackbar;

import java.time.LocalDateTime;
import java.time.format.DateTimeFormatter;
import java.util.ArrayList;

```

```

public class MainActivity extends AppCompatActivity {
    private ArrayList<SoldItem> soldItemList = new ArrayList<>();
    private ArrayList<Item> itemList = new ArrayList<>();

    private boolean isReset = true;
    private Utils utils = new Utils();
    private AlertDialog.Builder builder;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        getSupportActionBar().hide(); //hide actionbar
        getWindow().setFlags(WindowManager.LayoutParams.FLAG_FULLSCREEN,
WindowManager.LayoutParams.FLAG_FULLSCREEN); //hide status
        setContentView(R.layout.activity_main);

        if (this.getIntent().getExtras() != null) {
            soldItemList =
this.getIntent().getExtras().getParcelableArrayList("soldItemList");
            if
(this.getIntent().getExtras().getParcelableArrayList("itemList") != null) {
                itemList =
this.getIntent().getExtras().getParcelableArrayList("itemList");
            }
        } else {
            itemList = utils.createItemData();
        }
        if (savedInstanceState != null) {
            getDataFromSavedPage(savedInstanceState);
        }

        fetchData();
    }

    @Override
    protected void onSaveInstanceState(@NonNull Bundle outState) {

        TextView productName = (TextView) findViewById(R.id.productType);
        TextView quantity = (TextView) findViewById(R.id.quantity);
        TextView totalPrice = (TextView) findViewById(R.id.totalPrice);

        outState.putString("productName", productName.getText().toString());
        outState.putString("quantity", quantity.getText().toString());
        outState.putString("totalPrice", totalPrice.getText().toString());

        outState.putParcelableArrayList("itemList", itemList);
        outState.putParcelableArrayList("soldItemList", soldItemList);

        super.onSaveInstanceState(outState);
    }

    public void fetchData() {
        ListView mListView = (ListView) findViewById(R.id.theList);
        ItemListAdapter adapter = new ItemListAdapter(this,
R.layout.adapter_view_layout, itemList);
        mListView.setAdapter(adapter);
    }
}

```

```

    }

    public void getDataFromSavedPage(Bundle savedInstanceState) {
        TextView productName = (TextView) findViewById(R.id.productType);
        TextView quantity = (TextView) findViewById(R.id.quantity);
        TextView totalPrice = (TextView) findViewById(R.id.totalPrice);
        productName.setText(savedInstanceState.getString("productName"));
        quantity.setText(savedInstanceState.getString("quantity"));
        totalPrice.setText(savedInstanceState.getString("totalPrice"));

        soldItemList =
savedInstanceState.getParcelableArrayList("soldItemList");
        itemList = savedInstanceState.getParcelableArrayList("itemList");
    }

    public void onClick(View v) {
        if (isReset) {
            clearTextView();
            isReset = false;
        }
        Button button = (Button) v;
        String buttonText = button.getText().toString();
        TextView resultView = (TextView) findViewById(R.id.quantity);
        resultView.append(buttonText);
        calculatePrice();
    }

    public void renderingProductType(View v) {
        TextView itemName = (TextView) v.findViewById(R.id.textView1);
        String buttonText = itemName.getText().toString();
        TextView resultView = (TextView) findViewById(R.id.productType);
        resultView.setText(buttonText);
        calculatePrice();
    }

    public void goToManagementPanel(View v) {
        Intent myIntent = new Intent(this, ManagementPanel.class);
        Bundle bundle = new Bundle();
        bundle.putParcelableArrayList("itemList", itemList);
        bundle.putParcelableArrayList("soldItemList", soldItemList);
        myIntent.putExtras(bundle);
        startActivity(myIntent);
    }

    public void deleteButton(View v) {
        TextView resultView = (TextView) findViewById(R.id.quantity);

        String str = resultView.getText().toString();
        if (str.equals("Quantity")) {
            clearTextView();
            resultView.setText("0");
        } else {
            if (str.length() > 0 && !str.equals("0")) {
                resultView.setText(Utils.popCharacter(str));
                if (str.length() == 1) {
                    resultView.setText("0");
                    isReset = true;
                }
            }
        }
    }

```



```

        }
    }
    calculatePrice();
}

public void clearTextView() {
    TextView resultView = (TextView) findViewById(R.id.quantity);
    resultView.setText("");
}

public void deleteEverything(View v) {
    TextView quantity = (TextView) findViewById(R.id.quantity);
    quantity.setText("Quantity");
    TextView productType = (TextView) findViewById(R.id.productType);
    productType.setText("Product Type");
    TextView totalPrice = (TextView) findViewById(R.id.totalPrice);
    totalPrice.setText("Total");
    isReset = true;
}

public void buyButton(View v) {
    boolean flagSnackBar = true;
    TextView quantity = (TextView) findViewById(R.id.quantity);
    TextView productType = (TextView) findViewById(R.id.productType);
    TextView totalPrice = (TextView) findViewById(R.id.totalPrice);
    Item product = findItem(productType.getText().toString());
    String snackbarText = "";

    if (quantity.getText().toString().equals("Quantity") ||
        productType.getText().toString().equals("productType") ||
        totalPrice.getText().toString().equals("Total") ||
        quantity.getText().toString().equals("0") || product == null) {
        snackbarText = "All field are required!!!";
        flagSnackBar = false;
    } else {
        int number = Integer.parseInt(quantity.getText().toString());
        if (Integer.parseInt(quantity.getText().toString()) >
            product.getQuantity()) {
            snackbarText = "No Enough quantity in the stock!!!";
            flagSnackBar = false;
        }
    }

    if (!flagSnackBar) {
        View contextView = (View) findViewById(R.id.snackBar);
        contextView.getLayoutParams().height = 10;

        Snackbar mSnackBar = Snackbar.make(contextView, snackbarText,
            Snackbar.LENGTH_LONG);
        View mView = mSnackBar.getView();

        TextView mTextView = (TextView)
            mView.findViewById(R.id.snackbar_text);
        if (Build.VERSION.SDK_INT >= Build.VERSION_CODES.JELLY_BEAN_MR1)
            mTextView.setTextAlignment(View.TEXT_ALIGNMENT_CENTER);
    }
}

```

```

        else
            mTextView.setGravity(Gravity.CENTER_HORIZONTAL);

mSnackbar.setBackgroundTint(getColor(R.color.backgroundSnackBar)).setTextColor(
getColor(R.color.black));

        mSnackbar.show();
    } else {

product.sellAmount(Integer.parseInt(quantity.getText().toString()));
        builder = new AlertDialog.Builder(this);
        builder.setTitle("Thank You for your purchase").setMessage("Your
purchase is " + quantity.getText().toString() + " " +
productType.getText().toString() + " for " +
totalPrice.getText().toString());
        builder.show();
        LocalDateTime localDateTime = LocalDateTime.now();
        DateTimeFormatter formatter = DateTimeFormatter.ofPattern("yyyy-
MM-dd HH:mm:ss");
        String formatDateTime = localDateTime.format(formatter);
        SoldItem soldItem = new
SoldItem(productType.getText().toString(),
parseInt(quantity.getText().toString()),
parseDouble(totalPrice.getText().toString()), formatDateTime);
        soldItemList.add(soldItem);
        fetchData();
        deleteEverything(v);
    }
}

public Item findItem(String name) {
    for (Item item : itemList) {
        if (item.getName().equals(name)) {
            return item;
        }
    }
    return null;
}

public void calculatePrice() {
    TextView productName = (TextView) findViewById(R.id.productType);
    Item product = findItem(productName.getText().toString());

    TextView quantity = (TextView) findViewById(R.id.quantity);
    if (product != null && isNumeric(quantity.getText().toString())) {
        TextView totalPrice = (TextView) findViewById(R.id.totalPrice);
        double price = Integer.parseInt(quantity.getText().toString()) *
product.getUnitPrice();
        String priceString = String.format("%.2f", price);
        totalPrice.setText(priceString);
    }
}

public boolean isNumeric(String str) {
    return str.matches("-?\\d+(\\.\\d+)?");
}
}

```

ManagementPanel.java

```
package com.example.cashregister;

import androidx.activity.result.ActivityResultLauncher;
import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.view.WindowManager;

import java.util.ArrayList;

public class ManagementPanel extends AppCompatActivity {
    private ArrayList<SoldItem> soldItemList = new ArrayList<SoldItem>();
    private ArrayList<Item> itemList = new ArrayList<>();
    public ActivityResultLauncher<Intent> newLauncher;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_management_panel);
        getSupportActionBar().hide(); //hide actionbar
        getWindow().setFlags(WindowManager.LayoutParams.FLAG_FULLSCREEN,
            WindowManager.LayoutParams.FLAG_FULLSCREEN); //hide status
        soldItemList =
this.getIntent().getExtras().getParcelableArrayList("soldItemList");
        itemList =
this.getIntent().getExtras().getParcelableArrayList("itemList");
    }

    public void goToHistoryList(View v) {
        soldItemList.forEach(item -> {
            item.getDateSold();
        });
        Intent myIntent = new Intent(this, HistoryList.class);
        Bundle bundle = new Bundle();
        bundle.putParcelableArrayList("itemList", itemList);
        bundle.putParcelableArrayList("soldItemList", soldItemList);
        myIntent.putExtras(bundle);

        startActivity(myIntent);
    }

    public void backFunction(View v) {
        Intent myIntent = new Intent(this, MainActivity.class);
        Bundle bundle = new Bundle();
        bundle.putParcelableArrayList("itemList", itemList);
        bundle.putParcelableArrayList("soldItemList", soldItemList);
        myIntent.putExtras(bundle);
        startActivity(myIntent);
    }
}
```

SoldItem.java

```
package com.example.cashregister;

import android.os.Parcel;
import android.os.Parcelable;

import java.time.LocalDateTime;
import java.util.Date;

public class SoldItem implements Parcelable {
    private String name;
    private double total;
    private int quantity;
    public String dateSold;

    public SoldItem(String name, int quantity, double total, String dateSold)
    {
        this.name = name;
        this.quantity = quantity;
        this.total = total;
        this.dateSold = dateSold;
    }

    protected SoldItem(Parcel in) {
        name = in.readString();
        total = in.readDouble();
        quantity = in.readInt();
        dateSold = in.readString();
    }

    public static final Creator<SoldItem> CREATOR = new Creator<SoldItem>() {
        @Override
        public SoldItem createFromParcel(Parcel in) {
            return new SoldItem(in);
        }

        @Override
        public SoldItem[] newArray(int size) {
            return new SoldItem[size];
        }
    };

    @Override
    public int describeContents() {
        return 0;
    }

    @Override
    public void writeToParcel(Parcel parcel, int i) {
        parcel.writeString(name);
        parcel.writeDouble(total);
        parcel.writeInt(quantity);
        parcel.writeString(dateSold);
    }
}
```

```

    public String getName() { return this.name;};
    public int getQuantity() { return this.quantity;};
    public double getTotal() { return this.total;};
    public String getDateSold() { return "Purchased day: " + this.dateSold;};
}

```

SoldItemDetail.java

```

package com.example.cashregister;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.view.WindowManager;
import android.widget.TextView;

import org.w3c.dom.Text;

import java.util.ArrayList;

public class SoldItemDetail extends AppCompatActivity {
    SoldItem soldItem;
    ArrayList<SoldItem> soldItemList = new ArrayList<>();
    private ArrayList<Item> itemList = new ArrayList<>();

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);

        getSupportActionBar().setDisplayHomeAsUpEnabled(true);
        setContentView(R.layout.activity_sold_item_detail);
        getSupportActionBar().hide(); //hide actionbar
        getWindow().setFlags(WindowManager.LayoutParams.FLAG_FULLSCREEN,
WindowManager.LayoutParams.FLAG_FULLSCREEN);
        Bundle data = getIntent().getExtras();
        soldItem = (SoldItem) data.getParcelable("soldItemDetail");
        TextView itemName = (TextView) findViewById(R.id.textView4);
        TextView itemPrice = (TextView) findViewById(R.id.textView5);
        TextView itemDate = (TextView) findViewById(R.id.textView6);
        itemName.setText("Product: " + soldItem.getName());
        itemPrice.setText("Price: $" + soldItem.getTotal());
        itemDate.setText(soldItem.getDateSold());
        soldItemList =
this.getIntent().getExtras().getParcelableArrayList("soldItemList");

        itemList=this.getIntent().getExtras().getParcelableArrayList("itemList");
    }

    public void backFunction(View v) {
        Intent myIntent = new Intent(this, HistoryList.class);
        Bundle bundle = new Bundle();
        bundle.putParcelableArrayList("itemList", itemList);
        bundle.putParcelableArrayList("soldItemList", soldItemList);
        myIntent.putExtras(bundle);
    }
}

```

```

        startActivity(myIntent);
    }
}

```

Util.java

```

package com.example.cashregister;

import java.util.ArrayList;

public class Utils {
    public ArrayList<Item> createItemData() {
        ArrayList<Item> itemList = new ArrayList<Item>();

        Item pante = new Item("Pante", 10, 20.44);

        Item shoes = new Item("Shoes", 100, 10.44);

        Item hats = new Item("Hats", 30, 5.9);

        itemList.add(pante);
        itemList.add(shoes);
        itemList.add(hats);

        return itemList;
    }

    public String popCharacter(String str) {
        return str.substring(0, str.length() - 1);
    }
}

```

activity_history_list.xml

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    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"
    tools:context=".HistoryList">

    <LinearLayout
        android:id="@+id/header"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent">

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```

        <ImageButton
            android:id="@+id/imageButton"
            android:layout_width="wrap_content"
            android:layout_height="match_parent"
            android:backgroundTint="#00FFE1"
            android:onClick="backFunction"
            app:layout_constraintStart_toStartOf="parent"
            app:srcCompat="@drawable/ic_baseline_arrow_back_24"
            tools:layout_editor_absoluteY="91dp" />

        <TextView
            android:id="@+id/title"
            android:layout_width="match_parent"
            android:layout_height="40dp"
            android:background="#00FFE1"
            android:gravity="center|left"
            android:paddingLeft="10dp"
            android:text="Assignment 2"
            android:textSize="18dp"
            android:textStyle="bold"
            tools:ignore="MissingConstraints"
            tools:layout_editor_absoluteY="165dp" />
    </LinearLayout>

    <androidx.recyclerview.widget.RecyclerView
        android:id="@+id/recyclerList"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:padding="10dp"
        app:layout_constraintBottom_toBottomOf="parent"

        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/header"
        app:layout_constraintVertical_bias="0.0" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

Activity_main.xml

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    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"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/snackBar"
        android:layout_width="0dp"

```

```

        android:layout_height="0dp"
        tools:ignore="MissingConstraints"
    />

<TextView
    android:id="@+id/title"
    android:layout_width="match_parent"
    android:layout_height="40dp"
    android:background="#00FFE1"
    android:gravity="center|left"
    android:paddingLeft="10dp"
    android:text="Assignment 2"
    android:textSize="18dp"
    android:textStyle="bold"
    tools:ignore="MissingConstraints" />

<TextView
    android:id="@+id/productType"
    android:layout_width="0dp"
    android:layout_height="125dp"
    android:gravity="center"
    android:text="Product Type"
    app:layout_constraintEnd_toStartOf="@+id/guidelineDivide"
    app:layout_constraintStart_toStartOf="@+id/guidelineStart"
    app:layout_constraintTop_toBottomOf="@+id/title" />

<Button
    android:id="@+id/button"
    android:layout_width="127dp"
    android:layout_height="71dp"
    android:layout_marginBottom="28dp"
    android:backgroundTint="#00FFE1"
    android:onClick="goToManagementPanel"
    android:text="Manager"
    app:layout_constraintBottom_toBottomOf="@+id/productType"
    app:layout_constraintEnd_toStartOf="@+id/guidelineEnd"
    app:layout_constraintHorizontal_bias="1.0"
    app:layout_constraintStart_toStartOf="@+id/guidelineDivide" />

<TextView
    android:id="@+id/totalPrice"
    android:layout_width="129dp"
    android:layout_height="31dp"
    android:gravity="center|bottom"
    android:paddingBottom="10dp"
    android:text="Total"
    app:layout_constraintEnd_toStartOf="@+id/guideline3"
    app:layout_constraintStart_toEndOf="@+id/tableLayout"
    app:layout_constraintTop_toTopOf="@+id/guideline3"
    app:layout_constraintVertical_bias="1.0" />

<TableLayout
    android:id="@+id/tableLayout"
    android:layout_width="0dp"
    android:layout_height="0dp"
    app:layout_constraintBottom_toTopOf="@+id/guideline2"
    app:layout_constraintEnd_toStartOf="@+id/guidelineDivide"

```



```
app:layout_constraintStart_toStartOf="@+id/guidelineStart"
app:layout_constraintTop_toBottomOf="@+id/productType">
```

```
<TableRow
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="5dp"
    android:layout_marginEnd="5dp"
    android:layout_weight="1">
    <Button
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight=".33"
        android:backgroundTint="#00FFE1"
        android:onClick="onCLick"
        android:text="1"
        android:textColor="@color/black" />
```

```
    <Button
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight=".33"
        android:backgroundTint="#00FFE1"
        android:onClick="onCLick"
        android:text="2"
        android:textColor="@color/black" />
```

```
    <Button
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight=".33"
        android:backgroundTint="#00FFE1"
        android:onClick="onCLick"
        android:text="3"
        android:textColor="@color/black" />
```

```
</TableRow>
```

```
<TableRow
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="5dp"
    android:layout_marginEnd="5dp"
    android:layout_weight="1">
```

```
    <Button
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight=".33"
        android:backgroundTint="#00FFE1"
        android:onClick="onCLick"
        android:text="4"
        android:textColor="@color/black" />
```

```
    <Button
        android:layout_width="0dp"
        android:layout_height="match_parent"
```

```

        android:layout_weight=".33"
        android:backgroundTint="#00FFE1"
        android:onClick="onCLick"
        android:text="5"
        android:textColor="@color/black" />

<Button
    android:layout_width="0dp"
    android:layout_height="match_parent"
    android:layout_weight=".33"
    android:backgroundTint="#00FFE1"
    android:onClick="onCLick"
    android:text="6"
    android:textColor="@color/black" />

</TableRow>

<TableRow
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="5dp"
    android:layout_marginEnd="5dp"
    android:layout_weight="1">

    <Button
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight=".33"
        android:backgroundTint="#00FFE1"
        android:onClick="onCLick"
        android:text="7"
        android:textColor="@color/black" />

    <Button
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight=".33"
        android:backgroundTint="#00FFE1"
        android:onClick="onCLick"
        android:text="8"
        android:textColor="@color/black" />

    <Button
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight=".33"
        android:backgroundTint="#00FFE1"
        android:onClick="onCLick"
        android:text="9"
        android:textColor="@color/black" />

</TableRow>

<TableRow
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="5dp"

```

```

        android:layout_marginEnd="5dp"
        android:layout_weight="1">

        <Button
            android:layout_width="0dp"
            android:layout_height="match_parent"
            android:layout_weight=".33"
            android:backgroundTint="#00FFE1"
            android:onClick="deleteEverything"
            android:text="C"
            android:textColor="@color/black" />

        <Button
            android:layout_width="0dp"
            android:layout_height="match_parent"
            android:layout_weight=".33"
            android:backgroundTint="#00FFE1"
            android:onClick="onCLick"
            android:text="0"
            android:textColor="@color/black" />

        <Button
            android:layout_width="0dp"
            android:layout_height="match_parent"
            android:layout_weight=".33"
            android:backgroundTint="#00FFE1"
            android:onClick="deleteButton"
            android:text="Del"
            android:textColor="@color/black" />
    </TableRow>

</TableLayout>

<TableLayout
    android:layout_width="0dp"
    android:layout_height="0dp"
    app:layout_constraintBottom_toBottomOf="@+id/tableLayout"
    app:layout_constraintEnd_toStartOf="@+id/guidelineEnd"
    app:layout_constraintStart_toEndOf="@+id/tableLayout"
    app:layout_constraintTop_toBottomOf="@+id/totalPrice">

    <Button
        android:layout_width="118dp"
        android:layout_height="226dp"
        android:layout_marginStart="5dp"
        android:layout_marginEnd="5dp"
        android:layout_weight="1"
        android:backgroundTint="#00FFE1"
        android:onClick="buyButton"
        android:text="Buy"
        android:textColor="@color/black"
        app:cornerRadius="10dp" />
</TableLayout>

<TextView
    android:id="@+id/quantity"
    android:layout_width="wrap_content"

```

```
    android:layout_height="0dp"
    android:layout_marginTop="20dp"
    android:text="Quantity"
    android:textSize="20dp"
    app:layout_constraintEnd_toStartOf="@+id/guidelineDivide"
    app:layout_constraintHorizontal_bias="0.255"
    app:layout_constraintStart_toStartOf="@+id/guidelineStart"
    app:layout_constraintTop_toBottomOf="@+id/tableLayout" />
```

<ScrollView

```
    android:layout_width="0dp"
    android:layout_height="0dp"
    android:layout_marginTop="25dp"
    android:layout_marginBottom="10dp"
    android:fillViewport="true"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toStartOf="@+id/guidelineEnd"
    app:layout_constraintStart_toStartOf="@+id/guidelineStart"
    app:layout_constraintTop_toBottomOf="@+id/quantity">
```

<RelativeLayout

```
    android:id="@+id/parentRelative"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context="com.seneca.cashapp.MainActivity">
```

<ListView

```
    android:id="@+id/theList"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_alignParentStart="true"
    android:layout_alignParentTop="true" />
```

</RelativeLayout>

</ScrollView>

<androidx.constraintlayout.widget.Guideline

```
    android:id="@+id/guidelineStart"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:orientation="vertical"
    app:layout_constraintGuide_percent="0.05" />
```

<androidx.constraintlayout.widget.Guideline

```
    android:id="@+id/guidelineEnd"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:orientation="vertical"
    app:layout_constraintGuide_percent="0.96" />
```

<androidx.constraintlayout.widget.Guideline

```
    android:id="@+id/guidelineDivide"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:orientation="vertical"
```

```

        app:layout_constraintGuide_percent="0.65" />

        <androidx.constraintlayout.widget.Guideline
            android:id="@+id/guideline2"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:orientation="horizontal"
            app:layout_constraintGuide_percent="0.55" />
        <androidx.constraintlayout.widget.Guideline
            android:id="@+id/guideline3"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:orientation="horizontal"
            app:layout_constraintGuide_percent="0.22" />

    </androidx.constraintlayout.widget.ConstraintLayout>

```

Activity_management_panel.xml

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    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"
    tools:context=".ManagementPanel">

    <LinearLayout
        android:id="@+id/header"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent">

        <ImageButton
            android:id="@+id/imageButton"
            android:layout_width="wrap_content"
            android:layout_height="match_parent"
            android:backgroundTint="#00FFE1"
            android:onClick="backFunction"
            app:layout_constraintStart_toStartOf="parent"
            app:srcCompat="@drawable/ic_baseline_arrow_back_24"
            tools:layout_editor_absoluteY="91dp" />

        <TextView
            android:id="@+id/title"
            android:layout_width="match_parent"
            android:layout_height="40dp"
            android:background="#00FFE1"
            android:gravity="center|left"
            android:paddingLeft="10dp"

```

```

        android:text="Assignment 2"
        android:textSize="18dp"
        android:textStyle="bold"
        tools:ignore="MissingConstraints"
        tools:layout_editor_absoluteY="165dp" />
</LinearLayout>

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_marginTop="40dp"
    android:gravity="center_vertical|center_horizontal"
    android:orientation="vertical"
    app:layout_constraintTop_toBottomOf="@+id/header"
    tools:layout_editor_absoluteX="-49dp">

    <Button
        android:layout_width="100dp"
        android:layout_height="60dp"
        android:backgroundTint="#00FFE1"
        android:onClick="goToHistoryList"
        android:text="History" />

</LinearLayout>

</androidx.constraintlayout.widget.ConstraintLayout>

```

Activity_sold_item_detail.xml

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    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"
    xmlns:tools="http://schemas.android.com/tools">

    <LinearLayout
        android:id="@+id/header"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent">

        <ImageButton
            android:id="@+id/imageButton"
            android:layout_width="wrap_content"
            android:layout_height="match_parent"
            android:backgroundTint="#00FFE1"
            android:onClick="backFunction"
            app:layout_constraintStart_toStartOf="parent"
            app:srcCompat="@drawable/ic_baseline_arrow_back_24"
            tools:layout_editor_absoluteY="91dp" />
    </LinearLayout>

```

```

<TextView
    android:id="@+id/title"
    android:layout_width="match_parent"
    android:layout_height="40dp"
    android:background="#00FFE1"
    android:gravity="center|left"
    android:paddingLeft="10dp"
    android:text="Assignment 2"
    android:textSize="18dp"
    android:textStyle="bold"
    tools:ignore="MissingConstraints"
    tools:layout_editor_absoluteY="165dp" />
</LinearLayout>

<LinearLayout
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="92dp"
    android:gravity="center"
    android:orientation="vertical"
    app:layout_constraintBottom_toTopOf="@+id/guidelineEnd"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.498"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/header"
    app:layout_constraintVertical_bias="0.0">

    <TextView
        android:id="@+id/textView4"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="TextView2"
        android:textAlignment="center"
        android:textColor="#000000"
        android:textSize="20sp"
        tools:layout_editor_absoluteX="-16dp" />

    <TextView
        android:id="@+id/textView5"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/textView4"
        android:text="TextView2"
        android:textAlignment="center"
        android:textColor="#000000"
        android:textSize="20sp"
        tools:layout_editor_absoluteX="0dp" />

    <TextView
        android:id="@+id/textView6"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/textView5"
        android:text="TextView2"

```

```

        android:textAlignment="center"
        android:textColor="#000000"
        android:textSize="20sp"
        tools:layout_editor_absoluteX="41dp" />
</LinearLayout>

<androidx.constraintlayout.widget.Guideline
    android:id="@+id/guidelineEnd"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    app:layout_constraintGuide_percent="1" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

Adapter_view_layout.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="horizontal"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:weightSum="100">

    <LinearLayout
        android:orientation="vertical"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_weight="33.3"
        android:paddingLeft="30dp"
        android:onClick="renderingProductType"
        >

        <TextView
            android:id="@+id/textView1"
            android:gravity="left"
            android:text="TextView1"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:textSize="20sp"
            android:textStyle="bold"
            android:layout_marginBottom="10dp" />

        <TextView
            android:gravity="left"
            android:text="TextView2"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:textSize="20sp"
            android:id="@+id/textView2"
            android:textColor="#000000"
            android:layout_below="@+id/textView1"/>
    </LinearLayout>
    <TextView
        android:textAlignment="center"

```



```

        android:text="TextView3"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/textView3"
        android:textSize="20sp"
        android:layout_weight="66.6"
        android:textColor="#000000"/>
</LinearLayout>

```

Sold_item_recycler_list.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="horizontal"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:weightSum="100">

    <LinearLayout
        android:orientation="vertical"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_weight="33.3"
        android:paddingLeft="30dp"
        >

        <TextView
            android:id="@+id/textView4"
            android:gravity="left"
            android:text="TextView4"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:textSize="20sp"
            android:textStyle="bold"
            android:layout_marginBottom="10dp" />

        <TextView
            android:gravity="left"
            android:text="TextView5"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:textSize="20sp"
            android:id="@+id/textView5"
            android:textColor="#000000"
            android:layout_below="@+id/textView1"/>
    </LinearLayout>
    <TextView
        android:textAlignment="center"
        android:text="TextView6"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/textView6"
        android:textSize="20sp"
        android:layout_weight="66.6"
    >

```

```
        android:textColor="#000000"/>  
</LinearLayout>
```