

**Aim**

To create an Online shopping application using Android.

**Algorithm**

- Step 1. Create the layouts for the app.
- Step 2. Create the Product Class
- Step 3. Create the ShoppingCartHelper class
- Step 4. Create the Item Layout
- Step 5. Create the ProductAdapter class
- Step 6. Create the CatalogActivity
- Step 7. Create the ProductDetails Activity
- Step 8. Finally, create the ShoppingCart Activity

**Program****catalog.xml:**

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical" android:layout_width="fill_parent"
    android:layout_height="fill_parent" android:background="#ffffff">
    <TextView android:id="@+id/TextView01" android:layout_width="wrap_content"
    android:layout_height="wrap_content" android:textColor="#000000"
    android:textSize="24dip" android:layout_margin="5dip" android:text="Product
    Catalog"></TextView>
    <ListView android:layout_height="wrap_content"
    android:layout_weight="1" android:id="@+id/ListViewCatalog"
    android:layout_width="fill_parent" android:background="#ffffff"
    android:clickable="true" android:cacheColorHint="#ffffff">
    </ListView>
    <Button android:layout_width="wrap_content"
    android:layout_height="wrap_content" android:layout_margin="5dip"
    android:layout_gravity="right" android:id="@+id/ButtonViewCart"
    android:text="View Shopping Cart"></Button>
</LinearLayout>
```

**productdetails.xml:**

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_height="fill_parent" android:layout_width="fill_parent"
    android:background="#ffffff" android:orientation="vertical">
    <LinearLayout android:layout_width="wrap_content"
    android:layout_height="wrap_content" android:id="@+id/LinearLayoutHeader"
    android:orientation="horizontal">
    <ImageView android:layout_width="wrap_content"
    android:layout_height="wrap_content" android:id="@+id/ImageViewProduct"
    android:adjustViewBounds="true" android:scaleType="fitXY"
```

```

android:src="@drawable/deadoralive"
android:layout_margin="5dip"></ImageView>
<TextView android:layout_width="wrap_content"
android:layout_height="wrap_content" android:id="@+id/TextViewProductTitle"
android:layout_gravity="center" android:layout_margin="5dip"
android:textSize="26dip" android:text="Dead or Alive"
android:textColor="#000000"></TextView>

</LinearLayout>
<TextView android:layout_height="wrap_content"
android:id="@+id/TextViewProductDetails"
android:layout_width="fill_parent" android:layout_margin="5dip"
android:layout_weight="1" android:textColor="#000000" android:text="Product
description"></TextView>
<Button android:layout_width="wrap_content"
android:layout_height="wrap_content" android:layout_margin="5dip"
android:layout_gravity="right" android:id="@+id/ButtonAddToCart"
android:text="Add to Cart"></Button>
</LinearLayout>

```

### **shoppingcart.xml:**

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
android:orientation="vertical" android:layout_height="fill_parent"
android:layout_width="fill_parent" android:background="#ffffff">

<TextView android:id="@+id/TextView01" android:layout_width="wrap_content"
android:layout_height="wrap_content" android:textColor="#000000"
android:textSize="24dip" android:layout_margin="5dip" android:text="Shopping
Cart"></TextView>
<ListView android:layout_height="wrap_content"
android:layout_weight="1" android:id="@+id/ListViewCatalog"
android:layout_width="fill_parent" android:background="#ffffff"
android:cacheColorHint="#ffffff" android:clickable="true"
android:choiceMode="multipleChoice">

</ListView>
<LinearLayout android:id="@+id/LinearLayout01"
android:layout_width="wrap_content" android:layout_height="wrap_content"
android:orientation="horizontal" android:layout_gravity="right"
android:layout_margin="5dip">
<Button android:layout_width="wrap_content"
android:layout_height="wrap_content" android:id="@+id/ButtonRemoveFromCart"
android:text="Remove from Cart"></Button>
<Button android:id="@+id/Button02" android:layout_width="wrap_content"
android:layout_height="wrap_content" android:text="Proceed to
Checkout"></Button>
</LinearLayout>
</LinearLayout>

```

**Mainactivity.java:**

```
package com.dreamdom.tutorials.shoppingcart;
import android.graphics.drawable.Drawable;
public class Product {
    public String title;
    public Drawable productImage;
    public String description;
    public double price;
    public boolean selected;
    public Product(String title, Drawable productImage, String description,
        double price) {
        this.title = title;
        this.productImage = productImage;
        this.description = description;
        this.price = price;
    }
}
```

**ShoppingCartHelper.java:**

```
package com.dreamdom.tutorials.shoppingcart;
import java.util.List;
import java.util.Vector;
import android.content.res.Resources;
public class ShoppingCartHelper {
    public static final String PRODUCT_INDEX = "PRODUCT_INDEX";
    private static List<Product> catalog;
    private static List<Product> cart;
    public static List<Product> getCatalog(Resources res){
        if(catalog == null) {
            catalog = new Vector<Product>();
            catalog.add(new Product("Dead or Alive", res
                .getDrawable(R.drawable.deadoralive),
                "Dead or Alive by Tom Clancy with Grant Blackwood", 29.99));
            catalog.add(new Product("Switch", res
                .getDrawable(R.drawable.switchbook),
                "Switch by Chip Heath and Dan Heath", 24.99));
            catalog.add(new Product("Watchmen", res
                .getDrawable(R.drawable.watchmen),
                "Watchmen by Alan Moore and Dave Gibbons", 14.99));
        }
        return catalog;
    }
    public static List<Product> getCart() {
        if(cart == null) {
            cart = new Vector<Product>();
        }
        return cart;
    }
}
```

```
}
```

### **item.xml:**

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_height="wrap_content" android:orientation="horizontal"
    android:layout_width="fill_parent" android:id="@+id/LinearLayoutItem">
    <ImageView android:layout_margin="5dip" android:id="@+id/ImageViewItem"
        android:layout_height="wrap_content"
        android:layout_width="100dip"></ImageView>
    <TextView android:layout_width="wrap_content"
        android:layout_height="wrap_content" android:layout_gravity="center"
        android:layout_margin="5dip" android:id="@+id/TextViewItem"
        android:textSize="26dip" android:text="Book Title" android:textColor="#000000"
        android:minLines="2" android:maxLength="150dip"></TextView>
    <TextView android:id="@+id/TextView01" android:layout_width="wrap_content"
        android:layout_height="wrap_content" android:layout_weight="1"></TextView>
    <CheckBox android:layout_height="wrap_content"
        android:layout_margin="5dip" android:id="@+id/CheckBoxSelected"
        android:focusable="false" android:clickable="false"
        android:layout_gravity="center"
        android:layout_width="wrap_content"></CheckBox>
</LinearLayout>
```

### **ProductAdapter.java:**

```
package com.dreamdom.tutorials.shoppingcart;
import java.util.List;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.BaseAdapter;
import android.widget.CheckBox;
import android.widget.ImageView;
import android.widget.TextView;
public class ProductAdapter extends BaseAdapter {
    private List<Product> mProductList;
    private LayoutInflater mInflater;
    private boolean mShowCheckbox;
    public ProductAdapter(List<Product> list, LayoutInflater inflater, boolean
showCheckbox) {
        mProductList = list;
        mInflater = inflater;
        mShowCheckbox = showCheckbox;
    }
    @Override
    public int getCount() {
        return mProductList.size();
    }
    @Override
    public Object getItem(int position) {
```

```

return mProductList.get(position);
}

@Override
public long getItemId(int position) {
return position;
}
@Override
public View getView(int position, View convertView, ViewGroup parent) {
final ViewItem item;
if (convertView == null) {
convertView = inflater.inflate(R.layout.item,
null);
item = new ViewItem();
item.productImageView = (ImageView) convertView
.findViewById(R.id.imageViewItem);
item.productTitle = (TextView) convertView.findViewById(R.id.textViewItem);
item.productCheckbox = (CheckBox)
convertView.findViewById(R.id.checkBoxSelected);
convertView.setTag(item);
} else {
item = (ViewItem) convertView.getTag();
}
Product curProduct = mProductList.get(position);
item.productImageView.setImageDrawable(curProduct.productImage);
item.productTitle.setText(curProduct.title);
if(!mShowCheckbox) {
item.productCheckbox.setVisibility(View.GONE);
} else {
if(curProduct.selected == true)
item.productCheckbox.setChecked(true);
else
item.productCheckbox.setChecked(false);
}
return convertView;
}
private class ViewItem {
ImageView productImageView;
TextView productTitle;
CheckBox productCheckbox;
}
}

```

