

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
“Jnana Sangama”, Belagavi – 590 018, Karnataka



MINI PROJECT REPORT

ON

“E-COMMERCE APPLICATION”

*Submitted in partial fulfillment of the requirements for the
Mobile Application Development Lab (18AIL68)*

BACHELOR OF ENGINEERING

IN

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

Submitted by:

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under the guidance of

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C E R T I F I C A T E

This is to certify that the Mini Project titled '**E-COMMERCE APPLICATION**' carried out by **Mr Deepak P, USN: 1JT20AI005**, a bonafide student of Jyothy Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering**, in **Artificial Intelligence and machine learning Engineering** under Visvesvaraya Technological University, Belagavi, during the year 2022-2023.

The project report has been approved, as it satisfies the academic requirements in respect of Mini Project prescribed for the course Mobile Application Development Lab (18AIL68).

Signature of Faculty Incharge

.....
Mrs. Deepthi Das V
Assistant Professor
Dept of AI&ML

Signature of Faculty Incharge

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Mrs. Archana V R
Assistant Professor
Dept of AI&ML

Signature of HOD

.....
Dr. Madhu B R
Prof & Head of Dept AIML
Dept of AI&ML

External Viva

Name of the Examiners

1)

2)

Signature with Date

DECLARATION

I, Deepak P, 6th Semester students of Artificial intelligence and machine Learning, Jyothy Institute of Technology, Bangalore - 560 082, declare that the Mini Project of Mobile Application Development Lab (18AIL68) is successfully completed.

This report is submitted in partial fulfillment of the requirements for award of Bachelor Degree in Artificial intelligence and machine Learning, during the academic year 2022-2023.

Date : 13-07-2023

Place : Bangalore

USN : 1JT20AI005

Name : DEEPAK P

ACKNOWLEDGEMENT

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Last but not the least, I would like to thank our parents and friends without whose constant help, the completion of Mini Project would have not been possible.

DEEPAK P [1JT20AI005]

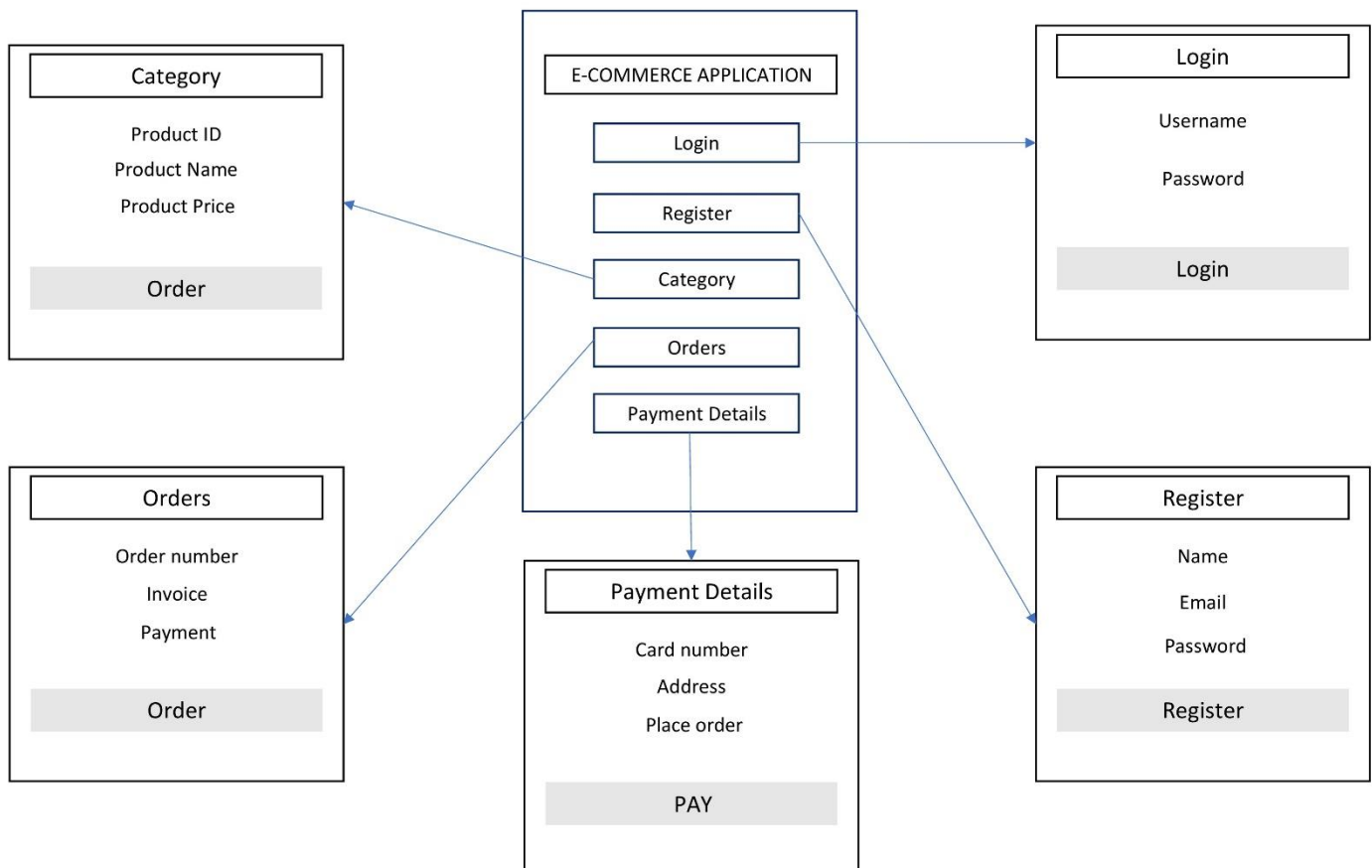
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CHAPTER 1

Problem statement with input and output diagram

Problem Statement:

Develop an Android application an E-commerce application that helps the user to manage and display all the current available commercially viable products of all kinds in an interactive User Interface

Input and Output Diagram:

The above diagram shows the various options and the separate pages in the android application.

The pages included in the application are:

- LOGIN PAGE
- REGISTRATION PAGE
- CATEGORY
- ORDERS
- PAYMENT DETAILS

CHAPTER 2

XML files Code

activity_main.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.coordinatorlayout.widget.CoordinatorLayout
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">

    <com.google.android.material.appbar.AppBarLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:theme="@style/Theme.App.AppBarOverlay"/>

    <include layout="@layout/content_main" />

</androidx.coordinatorlayout.widget.CoordinatorLayout>
```

activity_nav_drawer.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.drawerlayout.widget.DrawerLayout
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:id="@+id/drawer_layout"
tools:context=".NavDrawer">
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical"
        android:id="@+id/layout1">

        <include layout="@layout/main_toolbar" />

        <!--          <androidx.viewpager.widget.ViewPager-->
        <!--              android:id="@+id/pager"-->
        <!--              android:layout_width="match_parent"-->
        <!--              android:layout_height="match_parent"-->

        <!--          </androidx.viewpager.widget.ViewPager-->
        <FrameLayout
            android:id="@+id/placeholder"
            android:layout_width="match_parent"
            android:layout_height="match_parent">

        </FrameLayout>

    </LinearLayout>

    <RelativeLayout
```

```

        android:layout_width="350dp"
        android:layout_height="match_parent"
        android:background="@android:color/white"
        android:layout_gravity="start">

        <include layout="@layout/main_nav_drawer" />
    </RelativeLayout>

```

```
</androidx.drawerlayout.widget.DrawerLayout>
```

content_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"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    app:layout_behavior="@string/appbar_scrolling_view_behavior">

    <fragment
        android:id="@+id/nav_host_fragment_content_main"
        android:name="androidx.navigation.fragment.NavHostFragment"
        android:layout_width="0dp"
        android:layout_height="0dp"
        app:defaultNavHost="true"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:navGraph="@navigation/nav_graph" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

Custom_toast.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:id="@+id/custom_layout"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@drawable/customtoast"
    android:paddingLeft="20dp"
    android:paddingTop="10dp"
    android:paddingRight="20dp"
    android:paddingBottom="10dp">
    <TextView
        android:id="@+id/customtextmessage"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:fontFamily="monospace"
        android:padding="10dp"
        android:text="Item added to cart"
    >

```

```

        android:textColor="#000000"
        android:textSize="20dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

addtocart.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:id="@+id/frameLayout8"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".Navdrawer.AddToCart">

    <androidx.recyclerview.widget.RecyclerView
        android:id="@+id/addrecycler"
        android:layout_width="match_parent"
        android:layout_height="0dp"
        app:layout_constraintBottom_toTopOf="@+id/constraintLayout2"
        app:layout_constraintTop_toTopOf="parent"
        tools:listitem="@layout/row_add_to_cart" />

    <androidx.constraintlayout.widget.ConstraintLayout

        android:id="@+id/constraintLayout2"
        android:layout_width="match_parent"
        android:layout_height="70dp"
        android:background="#000000"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent">

        <TextView
            android:id="@+id/cartprice"
            android:layout_width="155dp"
            android:layout_height="match_parent"
            android:layout_marginStart="20dp"
            android:gravity="center_vertical"
            android:layout_marginEnd="24dp"
            android:text="Price"
            android:textColor="#FFFFFF"
            android:textSize="25dp"
            app:layout_constraintEnd_toStartOf="@+id/placeorder"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent" />

        <Button
            android:id="@+id/placeorder"
            android:layout_width="0dp"
            android:layout_height="wrap_content"

```

```

        android:layout_marginTop="10dp"
        android:layout_marginEnd="20dp"
        android:background="@drawable/roundbg"
        android:padding="10dp"
        android:text="Place Order"
        android:textColor="#FFFFFF"
        android:textSize="15dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
<ProgressBar
    android:id="@+id/cartprogressbar"
    style="?android:attr/progressBarStyle"
    android:layout_width="83dp"
    android:layout_height="68dp"
    android:layout_marginTop="248dp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="@+id/addrecycler" />

<TextView
    android:id="@+id/noproductfound"
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:layout_marginTop="276dp"
    android:gravity="center"
    android:text="Your cart is empty!"
    android:textColor="#000000"
    android:textSize="25dp"
    android:visibility="gone"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="@+id/addrecycler" />

<Button
    android:id="@+id/noproductbtn"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="396dp"
    android:background="@color/purple_500"
    android:padding="10dp"
    android:text="Shop Now"
    android:textColor="#FFFFFF"
    android:textSize="15dp"
    android:visibility="gone"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

allcategories.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:id="@+id/frameLayout2"
android:layout_width="match_parent"
android:layout_height="match_parent"
android:background="@color/white"
tools:context=".Navdrawer.AllCategories" >

<androidx.recyclerview.widget.RecyclerView
    android:id="@+id/allcategoriesrecycler"
    android:layout_width="0dp"
    android:layout_height="0dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    tools:listitem="@layout/row_all_categories_layout" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

appliances.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:id="@+id/frameLayout5"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".Navdrawer.Appliances">

    <TextView
        android:id="@+id/textView11"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:background="#7BF1D0"
        android:fontFamily="serif"
        android:gravity="center"
        android:padding="15dp"
        android:text="Appliances"
        android:textAllCaps="false"
        android:textColor="#020202"
        android:textSize="30dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <androidx.recyclerview.widget.RecyclerView
        android:id="@+id/appliancesrecycler"
        android:layout_width="0dp"
        android:layout_height="0dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView11"
        tools:listitem="@layout/row_mobile_layout" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

checkoutaddress.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:id="@+id/frameLayout9"
    android:layout width="match parent"
    android:layout height="match parent"
    tools:context=".Checkout.CheckoutAddress">

    <EditText
        android:id="@+id/loginemail2"
        android:layout width="0dp"
        android:layout height="wrap content"
        android:layout marginStart="25dp"
        android:layout marginTop="30dp"
        android:layout marginEnd="25dp"
        android:background="@drawable/round border"
        android:drawableStart="@drawable/round border"
        android:drawablePadding="10dp"
        android:ems="20"
        android:hint="Name"
        android:inputType="textPersonName"
        android:outlineProvider="none"
        android:padding="15dp"
        android:textColorHint="#686565"
        app:layout constraintEnd toEndOf="parent"
        app:layout constraintHorizontal bias="0.0"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toBottomOf="@+id/textView14" />

    <EditText
        android:id="@+id/loginemail3"
        android:layout width="0dp"
        android:layout height="wrap content"
        android:layout marginStart="25dp"
        android:layout marginTop="112dp"
        android:layout marginEnd="25dp"
        android:background="@drawable/round border"
        android:drawableStart="@drawable/round border"
        android:drawablePadding="10dp"
        android:ems="20"
        android:hint="Phone Number"
        android:inputType="textPersonName"
        android:outlineProvider="none"
        android:padding="15dp"
        android:textColorHint="#686565"
        app:layout constraintEnd toEndOf="parent"
        app:layout constraintHorizontal bias="0.0"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toBottomOf="@+id/textView14" />

    <Button
        android:id="@+id/registerbutton2"
        android:layout width="0dp"

```

```

        android:layout height="wrap content"
        android:layout marginStart="50dp"
        android:layout marginEnd="50dp"
        android:background="@drawable/round bg"
        android:cursorVisible="true"
        android:outlineProvider="none"
        android:text="Next"
        android:textColor="#FFFFFF"
        android:textSize="20dp"
        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/editTextTextPostalAddress" />

<ProgressBar
    android:id="@+id/progressBaradd"
    style="?android:attr/progressBarStyleHorizontal"
    android:layout width="0dp"
    android:layout height="wrap content"
    android:layout marginStart="40dp"
    android:layout marginTop="32dp"
    android:layout marginEnd="40dp"
    android:scaleY="1"
    app:layout constraintEnd toEndOf="parent"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />

<Button
    android:id="@+id/checkout1"
    android:layout width="40dp"
    android:layout height="40dp"
    android:layout marginStart="40dp"
    android:layout marginTop="20dp"
    android:background="@drawable/roundborder1"
    android:text="1"
    android:textSize="20dp"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />

<Button
    android:id="@+id/checkout2"
    android:layout width="40dp"
    android:layout height="40dp"
    android:layout marginStart="172dp"
    android:layout marginTop="20dp"
    android:background="@drawable/roundborder1"
    android:text="2"
    android:textSize="20dp"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />

<Button
    android:id="@+id/checkout3"
    android:layout width="40dp"

```



```

        android:layout height="40dp"
        android:layout marginStart="300dp"
        android:layout marginTop="20dp"
        android:background="@drawable/roundborder1"
        android:text="3"
        android:textSize="20dp"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toTopOf="parent" />

```

```

<TextView
    android:id="@+id/textView14"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout marginTop="24dp"
    android:text="Address Details"
    android:textColor="#FF0000"
    android:textSize="30dp"
    app:layout constraintEnd toEndOf="parent"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toBottomOf="@+id/checkout2" />

```

```

<TextView
    android:id="@+id/textView16"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout marginTop="40dp"
    android:fontFamily="monospace"
    android:text="Enter Your Address"
    android:textColor="#000000"
    android:textSize="20dp"
    app:layout constraintEnd toEndOf="parent"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toBottomOf="@+id/loginemail3" />

```

```

<EditText
    android:id="@+id/editTextTextPostalAddress"
    android:layout width="0dp"
    android:layout height="129dp"
    android:layout marginStart="20dp"
    android:layout marginTop="28dp"
    android:layout marginEnd="20dp"
    android:background="@drawable/square border"
    android:ems="10"
    android:inputType="textMultiLine"
    android:maxLines="10"
    android:padding="10dp"
    android:scrollbars="vertical"
    android:textColor="#000000"
    android:textSize="20dp"
    app:boxBackgroundMode="none"
    app:layout constraintEnd toEndOf="parent"
    app:layout constraintHorizontal bias="0.0"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toBottomOf="@+id/textView16" />

```

```

</androidx.constraintlayout.widget.ConstraintLayout>

```


CHAPTER 3

Java files Code

HomeActivity.java:

```
package com.example.Library.MadProject;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

public class HomeActivity extends AppCompatActivity implements
View.OnClickListener {
    Button btnBook;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_home);
        btnBook = (Button) findViewById(R.id.btnmain);
        btnBook.setOnClickListener(this);
    }
    @Override
    public void onClick(View v) {
        Intent intent = new Intent(this, AddActivity.class);
        startActivity(intent);
    }
}
```

MainActivity.java:

```
package com.example.app;
import android.content.Context;
import android.os.Bundle;
import androidx.appcompat.app.AppCompatActivity;
import androidx.navigation.NavController;
import androidx.navigation.Navigation;
import androidx.navigation.ui.AppBarConfiguration;
import androidx.navigation.ui.NavigationUI;
import com.example.app.databinding.ActivityMainBinding;
public class MainActivity extends AppCompatActivity {

    private AppBarConfiguration appBarConfiguration;
    private ActivityMainBinding binding;
    Context ctx;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);

        binding = ActivityMainBinding.inflate(getLayoutInflater());
        setContentView(binding.getRoot());
        NavController navController = Navigation.findNavController(this,
R.id.nav_host_fragment_content_main);
        appBarConfiguration = new
AppBarConfiguration.Builder(navController.getGraph()).build();
//        NavigationUI.setupActionBarWithNavController(this, navController,
appBarConfiguration);
    }
}
```

```

    }
    @Override
    public boolean onSupportNavigateUp() {
        NavController navController = Navigation.findNavController(this,
            R.id.nav_host_fragment_content_main);
        return NavigationUI.navigateUp(navController, appBarConfiguration)
            || super.onSupportNavigateUp();
    }
}

```

Addtocart.java:

```

package com.example.app.Navdrawer;
import android.content.Context;
import android.os.Bundle;
import androidx.annotation.NonNull;
import androidx.annotation.Nullable;
import androidx.fragment.app.Fragment;
import androidx.fragment.app.FragmentTransaction;
import androidx.recyclerview.widget.LinearLayoutManager;
import androidx.recyclerview.widget.RecyclerView;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.ImageView;
import android.widget.TextView;
import android.widget.Toast;
import com.bumptech.glide.Glide;
import com.example.app.Checkout.CheckoutAddress;
import com.example.app.Model.Addtocartmodel;
import com.example.app.R;
import com.example.app.databinding.FragmentAddToCartBinding;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.auth.FirebaseUser;
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.ValueEventListener;

import org.jetbrains.annotations.NotNull;

import java.util.ArrayList;
import java.util.List;
public class AddToCart extends Fragment {

    private FirebaseAuth auth;
    private FragmentAddToCartBinding binding;
    private FirebaseUser user;
    private Addtocartadapter addtocartadapter;
    private List<Addtocartmodel> list;
    private DatabaseReference databaseReference;

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

```

```

        auth=FirebaseAuth.getInstance();
        user = auth.getCurrentUser();
    }

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                             Bundle savedInstanceState) {
        // Inflate the layout for this fragment
        binding = FragmentAddToCartBinding.inflate(getLayoutInflater());
        getdata();
        return binding.getRoot();
    }

    @Override
    public void onViewCreated(@NonNull @NotNull View view, @Nullable
    @org.jetbrains.annotations.Nullable Bundle savedInstanceState) {
        super.onViewCreated(view, savedInstanceState);

        binding.placeorder.setOnClickListener(v -> {
            CheckoutAddress cp=new CheckoutAddress();
            Bundle b=new Bundle();
            b.putCharSequence("data",binding.cartprice.getText());
            cp.setArguments(b);
            FragmentTransaction ft=
getFragmentManager().beginTransaction();
            ft.replace(R.id.placeholder,cp);
            ft.addToBackStack(null);
            ft.commit();
        });
        binding.noproductbtn.setOnClickListener(v->{
            FragmentTransaction ft=
getFragmentManager().beginTransaction();
            ft.replace(R.id.placeholder,new AllCategories());
            ft.addToBackStack(null);
            ft.commit();
        });
    }
    public void getdata(){
        list = new ArrayList<>();

        binding.addrecycler.setLayoutManager(new
LinearLayoutManager(getActivity()));
        addtocartadapter = new Addtocartadapter(getActivity(),
list,R.layout.row_add_to_cart);
        binding.addrecycler.setAdapter(addtocartadapter);
        DatabaseReference databaseReference=
FirebaseDatabase.getInstance().getReference().child("users").child(user.get
Uid()).child("Add To Cart");
        databaseReference.addValueEventListener(new ValueEventListener() {
            @Override
            public void onDataChange(@NonNull @NotNull DataSnapshot
snapshot) {
                list.clear();

                int price=0;
                for(DataSnapshot data:snapshot.getChildren()){
                    String tempprice=null;

```

```

        Addtocartmodel
addtocartmodel=data.getValue(Addtocartmodel.class);

tempprice=addtocartmodel.newprice.replace(",","").replace("
","").replace("₹","");
        price=price+Integer.parseInt(tempprice);
        list.add(addtocartmodel);
    }
    binding.cartprogressbar.setVisibility(View.GONE);
    if(list.size()==0){
        binding.noproductfound.setVisibility(View.VISIBLE);
        binding.noproductbtn.setVisibility(View.VISIBLE);
        binding.constraintLayout2.setVisibility(View.GONE);
    }
    binding.addrecycler.getAdapter().notifyDataSetChanged();
    String tempprice=String.valueOf(price);
    binding.cartprice.setText(new StringBuilder("₹
    "+tempprice));
    }
    @Override
    public void onCancelled(@NonNull @NotNull DatabaseError error)
    {

    }
    });
}

class Addtocartadapter extends
RecyclerView.Adapter<Addtocartadapter.Holder>{

    Context ctx;
    List<Addtocartmodel> addtocartmodelListlist;
    int layout;
    LayoutInflater inflater;

    public Addtocartadapter(Context ctx, List<Addtocartmodel>
addtocartmodelListlist1, int layout) {
        this.ctx = ctx;
        this.addtocartmodelListlist = addtocartmodelListlist1;
        this.layout = layout;
        inflater=LayoutInflater.from(ctx);
    }
    @NonNull
    @NotNull
    @Override
    public Holder onCreateViewHolder(@NonNull @NotNull ViewGroup
parent, int viewType) {
        View v=inflater.inflate(layout,parent,false);
        return new AddToCart.Addtocartadapter.Holder(v);
    }
    @Override
    public void onBindViewHolder(@NonNull @NotNull
Addtocartadapter.Holder holder, int position) {
        Addtocartmodel
addtocartmodel=addtocartmodelListlist.get(position);
        holder.bind(addtocartmodel);
    }
}

```

```

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

public class Holder extends RecyclerView.ViewHolder {

    TextView name;
    TextView price;
    TextView quantity;
    ImageView img;
    int newquantity=0;
    Long newprice,oldprice;

    public Holder(@NonNull @NotNull View itemView) {
        super(itemView);
        name=itemView.findViewById(R.id.atcname);
        price=itemView.findViewById(R.id.atcprice);
        quantity=itemView.findViewById(R.id.atcquantity);
        img=itemView.findViewById(R.id.atcimage);

        ImageView
increase=itemView.findViewById(R.id.atcincreasebtn);
        increase.setOnClickListener(v->{

newquantity=Integer.parseInt(addtocartmodelListlist.get(getAdapterPosition(
)).quantity)+1;

newprice=Long.parseLong(addtocartmodelListlist.get(getAdapterPosition()).newprice
                                .replace(",","")
                                .replace(" ",""));

.replace("₹","")+Long.parseLong(addtocartmodelListlist.get(getAdapterPosition()).price
                                .replace(",","")
                                .replace(" ","")
                                .replace("₹",""));

        DatabaseReference
databaseReference=FirebaseDatabase.getInstance().getReference()
                                .child("users")
                                .child(user.getUid())
                                .child("Add To Cart")

                                .child(addtocartmodelListlist.get(getAdapterPosition()).id);

databaseReference.child("quantity").setValue(String.valueOf(newquantity));

databaseReference.child("newprice").setValue(String.valueOf(newprice));
        quantity.setText(String.valueOf(newquantity));
        price.setText(String.valueOf(newprice));
    });
}

```

```

        ImageView
decrease=itemView.findViewById(R.id.atcdecreasebtn);
        decrease.setOnClickListener(v->{
            int
temp=Integer.parseInt(addtocartmodelListlist.get(getAdapterPosition()).quantity);
            if(temp>1){
                newquantity=temp-1;

newprice=Long.parseLong(addtocartmodelListlist.get(getAdapterPosition()).newprice
                                .replace(",","")
                                .replace(" ","")
                                .replace("₹","") -
Long.parseLong(addtocartmodelListlist.get(getAdapterPosition()).price
                                .replace(",","")
                                .replace(" ","")
                                .replace("₹",""));

        DatabaseReference
databaseReference=FirebaseDatabase.getInstance().getReference()
                                .child("users")
                                .child(user.getUid())
                                .child("Add To Cart")

                                .child(addtocartmodelListlist.get(getAdapterPosition()).id);
databaseReference.child("quantity").setValue(String.valueOf(newquantity));
databaseReference.child("newprice").setValue(String.valueOf(newprice));
                                quantity.setText(String.valueOf(newquantity));
                                price.setText(String.valueOf(newprice));
        }
    });

    /***** delete product *****/
    *****/
        ImageView
deleteproduct=itemView.findViewById(R.id.atcdeletebtn);
        deleteproduct.setOnClickListener(v-> {
            int pos=getAdapterPosition();
            databaseReference =
FirebaseDatabase.getInstance().getReference()
                                .child("users")
                                .child(user.getUid())
                                .child("Add To Cart")

                                .child(addtocartmodelListlist.get(getAdapterPosition()).id);

                                databaseReference.removeValue();
                                addtocartmodelListlist.remove(pos);
                                notifyItemRemoved(pos);

//
        });

```

```

    }
    public void bind(Addtocartmodel addtocartmodel) {
        name.setText(addtocartmodel.name);
        price.setText(addtocartmodel.newprice);
        quantity.setText(addtocartmodel.quantity);

        Glide.with(ctx).load(addtocartmodel.url).override(600,600).into(img);
    }
}

```

Allcategories.java:

```

package com.example.app.Navdrawer;
import android.content.Context;
import android.content.res.TypedArray;
import android.os.Bundle;
import androidx.annotation.NonNull;
import androidx.annotation.Nullable;
import androidx.fragment.app.Fragment;
import androidx.fragment.app.FragmentTransaction;
import androidx.recyclerview.widget.LinearLayoutManager;
import androidx.recyclerview.widget.RecyclerView;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.ImageView;
import android.widget.TextView;
import com.bumptech.glide.Glide;
import com.example.app.Model.AllCategoriesData;
import com.example.app.R;
import com.example.app.databinding.FragmentAllCategoriesBinding;
import org.jetbrains.annotations.NotNull;
import java.util.ArrayList;
import java.util.List;
public class AllCategories extends Fragment {

    private FragmentAllCategoriesBinding binding;
    private ArrayList<AllCategoriesData> mdata;
    private AllCategoriesAdapter allCategoriesAdapter;

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

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                             Bundle savedInstanceState) {
        // Inflate the layout for this fragment
        binding =
        FragmentAllCategoriesBinding.inflate(getLayoutInflater());
        return binding.getRoot();
    }

    @Override

```



```

    public void onViewCreated(@NonNull @NotNull View view, @Nullable
    @org.jetbrains.annotations.Nullable Bundle savedInstanceState) {
        super.onViewCreated(view, savedInstanceState);
        mdata= new ArrayList<>();
        CharSequence[]
titlearray=getActivity().getResources().getTextArray(R.array.allcategoriesn
ame);
        CharSequence[]
discarray=getActivity().getResources().getTextArray(R.array.allcategoriesdi
sc);
        TypedArray
imgarray=getActivity().getResources().obtainTypedArray(R.array.allcategorie
simages);

        for(int i=0;i<titlearray.length;i++){
            mdata.add(new
AllCategoriesData(titlearray[i],discarray[i],imgarray.getResourceId(i,0)));
        }
        binding.allcategoriesrecycler.setLayoutManager(new
LinearLayoutManager(getActivity()));
        allCategoriesAdapter = new
AllCategoriesAdapter(getActivity(),mdata,R.layout.row_all_categories_layout
);
        binding.allcategoriesrecycler.setAdapter(allCategoriesAdapter);
        imgarray.recycle();
    }

    public void GoToNext(int position){
        FragmentTransaction ft=getFragmentManager().beginTransaction();
        switch (position){
            case 0:ft.replace(R.id.placeholder,new Mobiles());
                break;
            case 1:ft.replace(R.id.placeholder,new Electronics());
                break;
            case 2:ft.replace(R.id.placeholder,new HomeDecor());
                break;
            case 3:ft.replace(R.id.placeholder,new Fashion());
                break;
            case 4:ft.replace(R.id.placeholder,new Appliances());
                break;
            default:ft.replace(R.id.placeholder,new Home());
        }
        ft.addToBackStack(null);
        ft.commit();
    }

    public class AllCategoriesAdapter extends
RecyclerView.Adapter<AllCategoriesAdapter.Holder>{

        Context ctx;
        List<AllCategoriesData> list;
        int layout;
        LayoutInflater inflater;

        public AllCategoriesAdapter(Context ctx, List<AllCategoriesData>
list, int layout) {
            this.ctx = ctx;

```

```

        this.list = list;
        this.layout = layout;
        inflater=LayoutInflater.from(ctx);
    }

    @NonNull
    @NotNull
    @Override
    public AllCategoriesAdapter.Holder onCreateViewHolder(@NonNull
    @NotNull ViewGroup parent, int viewType) {
        View v=inflater.inflate(layout,parent,false);
        return new AllCategories.AllCategoriesAdapter.Holder(v);
    }

    @Override
    public void onBindViewHolder(@NonNull @NotNull
    AllCategoriesAdapter.Holder holder, int position) {
        AllCategoriesData allCategoriesData=list.get(position);
        holder.bindto(allCategoriesData);
    }

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

    public class Holder extends RecyclerView.ViewHolder {
        TextView name;
        ImageView img;
        TextView disc;
        public Holder(@NonNull @NotNull View itemView) {
            super(itemView);
            name=itemView.findViewById(R.id.categoryname);
            img=itemView.findViewById(R.id.categoryimage);
            disc=itemView.findViewById(R.id.categorydisc);
            itemView.setOnClickListener(v->{
                GoToNext(getAdapterPosition());
            });
        }
        public void bindto(AllCategoriesData allCategoriesData){
            name.setText(allCategoriesData.title);
            disc.setText(allCategoriesData.disc);

            Glide.with(ctx).load(allCategoriesData.image).override(600,600).into(img);
        }
    }
}

```

Home.java:

```

package com.example.Library.MadProject;
package com.example.app.Navdrawer;

import android.os.Bundle;

```

```
import androidx.annotation.NonNull;
import androidx.annotation.Nullable;
import androidx.fragment.app.Fragment;

import android.view.Gravity;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.Toast;

import com.example.app.R;
import com.example.app.databinding.FragmentHomeBinding;

import org.jetbrains.annotations.NotNull;

public class Home extends Fragment {

    private FragmentHomeBinding binding;

    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        binding = FragmentHomeBinding.inflate(getLayoutInflater());
    }

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                             Bundle savedInstanceState) {
        // Inflate the layout for this fragment
        binding = FragmentHomeBinding.inflate(getLayoutInflater());

        return binding.getRoot();
    }

    @Override
    public void onViewCreated(@NonNull @NotNull View view, @Nullable
    @org.jetbrains.annotations.Nullable Bundle savedInstanceState) {
        super.onViewCreated(view, savedInstanceState);
    }
}
```

detailsFragments.java:

```
package com.example.app.Checkout;
import android.os.Bundle;
import androidx.annotation.NonNull;
import androidx.annotation.Nullable;
import androidx.fragment.app.Fragment;
import androidx.fragment.app.FragmentTransaction;
import android.view.Gravity;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.Toast;
```

```

import com.bumptech.glide.Glide;
import com.example.app.Model.AdapterData;
import com.example.app.Model.Addtocartmodel;
import com.example.app.Navdrawer.AddToCart;
import com.example.app.R;
import com.example.app.databinding.FragmentDetailsBinding;
import com.google.android.gms.tasks.OnCompleteListener;
import com.google.android.gms.tasks.Task;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.auth.FirebaseUser;
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.ValueEventListener;
import com.google.firebase.firestore.FirebaseFirestore;
import org.jetbrains.annotations.NotNull;

public class DetailsFragment extends Fragment {

    private FragmentDetailsBinding binding;
    private FirebaseAuth auth;
    private FirebaseFirestore db;
    private AdapterData ad;
    private FirebaseUser user;
    private DatabaseReference databaseReference;
    private DatabaseReference databaseReference1;
    private String price;

    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        auth=FirebaseAuth.getInstance();
        db=FirebaseFirestore.getInstance();
    }

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                             Bundle savedInstanceState) {
        // Inflate the layout for this fragment
        binding = FragmentDetailsBinding.inflate(getLayoutInflater());
        Bundle b=this.getArguments();
        ad = b.getParcelable("data");
        binding.detailsdataname.setText(ad.name);

        Glide.with(this).load(ad.url).override(600,600).into(binding.detailsdataimage);
        binding.detailsdataprice.setText(ad.price);
        binding.detailsdatadetails.setText(ad.details);
        binding.bookbutton.setOnClickListener(v->{
        });

        price = ad.price;
        return binding.getRoot();
    }

    @Override
    public void onViewCreated(@NonNull @NotNull View view, @Nullable
    @org.jetbrains.annotations.Nullable Bundle savedInstanceState) {
        super.onViewCreated(view, savedInstanceState);
        user = auth.getCurrentUser();
    }

```

```

databaseReference=FirebaseDatabase.getInstance().getReference().child("users").child(user.getUid()).child("Add To Cart");
        databaseReference.addValueEventListener(new ValueEventListener() {
            @Override
            public void onDataChange(@NonNull @NotNull DataSnapshot
snapshot) {
                if(snapshot.child(ad.id).exists()){
                    binding.addtocart.setVisibility(View.GONE);
                    binding.gotocart.setVisibility(View.VISIBLE);
                    binding.gotocart.setOnClickListener(v->{
                        checkdata();
                    });
                }
            }
            @Override
            public void onCancelled(@NonNull @NotNull DatabaseError error)
{ }
        });

        binding.addtocart.setOnClickListener(v->{

            Addtocartmodel addtocartmodel=new
Addtocartmodel(ad.name,ad.price,ad.url,"1",ad.id,ad.price);

databaseReference=FirebaseDatabase.getInstance().getReference().child("users").child(user.getUid()).child("Add To Cart");

databaseReference=FirebaseDatabase.getInstance().getReference().child("users").child(user.getUid()).child("Add To Cart");

        databaseReference.addListenerForSingleValueEvent(new
ValueEventListener() {
            @Override
            public void onDataChange(@NonNull @NotNull DataSnapshot
snapshot) {
                if(snapshot.child(ad.id).exists()){

                }
                else{

databaseReferencel=FirebaseDatabase.getInstance().getReference("users/"+user.getUi
d())

                                .child("Add To Cart").child(ad.id);

databaseReferencel.setValue(addtocartmodel).addOnCompleteListener(new
OnCompleteListener<Void>() {
                    @Override
                    public void onComplete(@NonNull @NotNull
Task<Void> task) {
                                if(task.isSuccessful()){
                                    showToast();
                                }
                            }
                        });
                    }
                }
            }
            @Override
            public void onCancelled(@NonNull @NotNull DatabaseError
error) { }
        });

```

```
});

binding.bookbutton.setOnClickListener(v->{
    CheckoutAddress cp=new CheckoutAddress();
    Bundle b=new Bundle();
    b.putString("data",price);
    cp.setArguments(b);

    FragmentTransaction ft= getSupportFragmentManager().beginTransaction();
    ft.replace(R.id.placeholder,cp);
    ft.addToBackStack(null);
    ft.commit();

});
}

public void showToast(){
    LayoutInflater inflater=getLayoutInflater();
    View
layout=inflater.inflate(R.layout.custom_toast,getActivity().findViewById(R.id.cust
om_layout));
    Toast toast=new Toast(getApplicationContext());
    toast.setGravity(Gravity.BOTTOM,0,200);
    toast.setDuration(Toast.LENGTH_SHORT);
    toast.setView(layout);
    toast.show();

}
public void checkdata(){
    FragmentTransaction ft= getSupportFragmentManager().beginTransaction();
    ft.replace(R.id.placeholder,new AddToCart());
    ft.addToBackStack(null);
    ft.commit()
}

}
```

CHAPTER 4

SCREENSHOTS

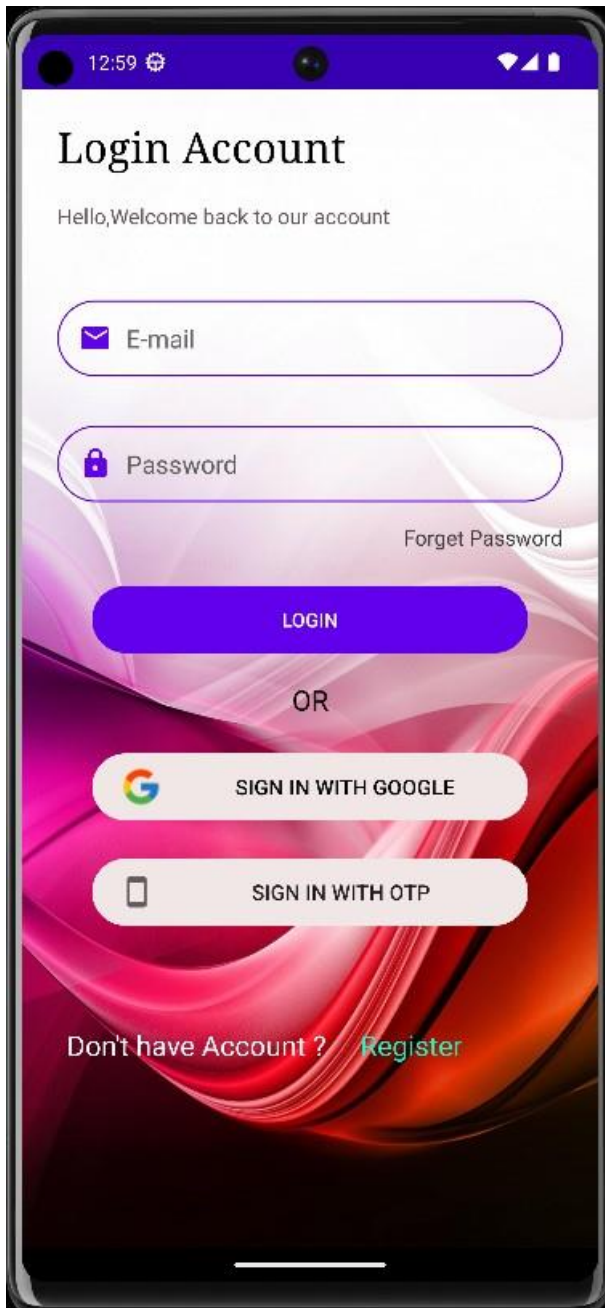
Screenshots:

Figure 4.1 : LOGIN PAGE

Description:

This page takes user input such as user id and password and it is used to create account.

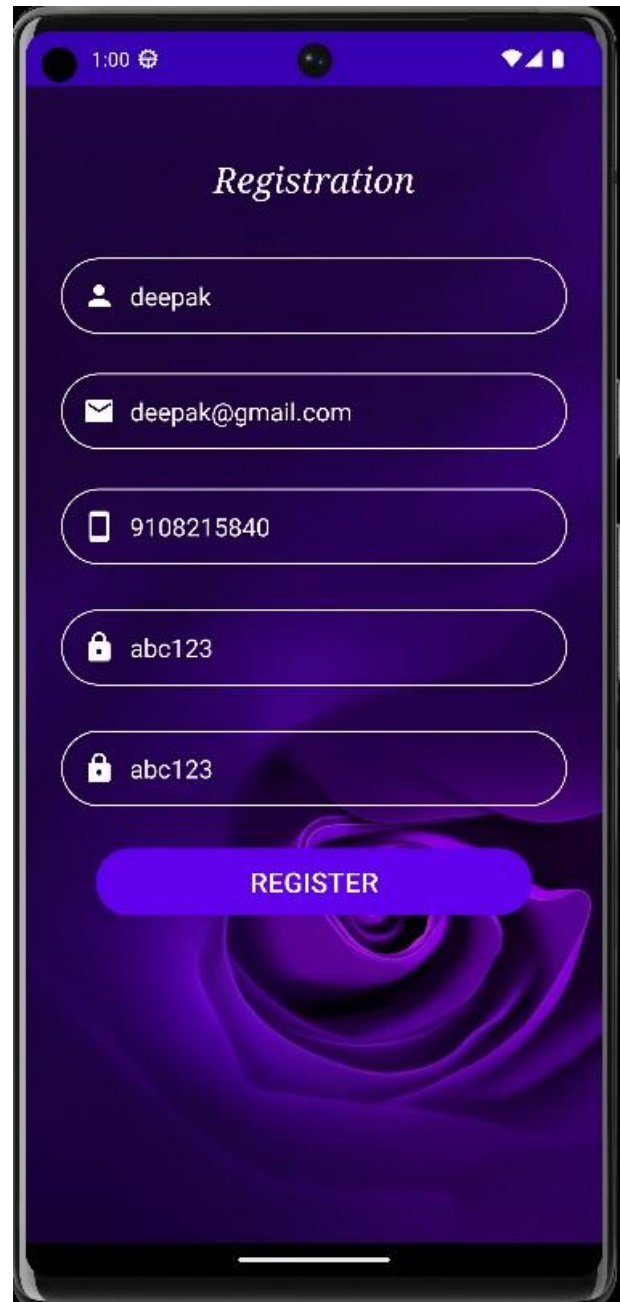


Figure 4.2 : REGISTER PAGE

Description:

This page contains all the required steps to register.



Figure 4.3 : HOME PAGE 1

Description:
This page contains the various categories of products.

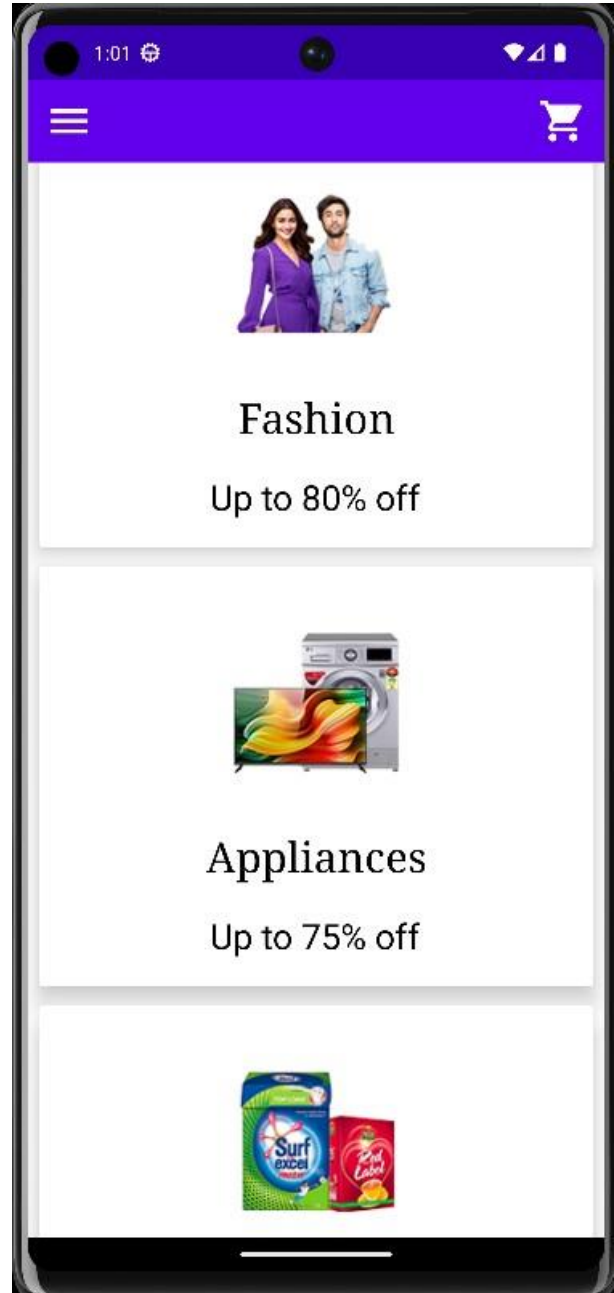


Figure 4.4 : HOME PAGE 2

Description:
This page contains the various categories of products.

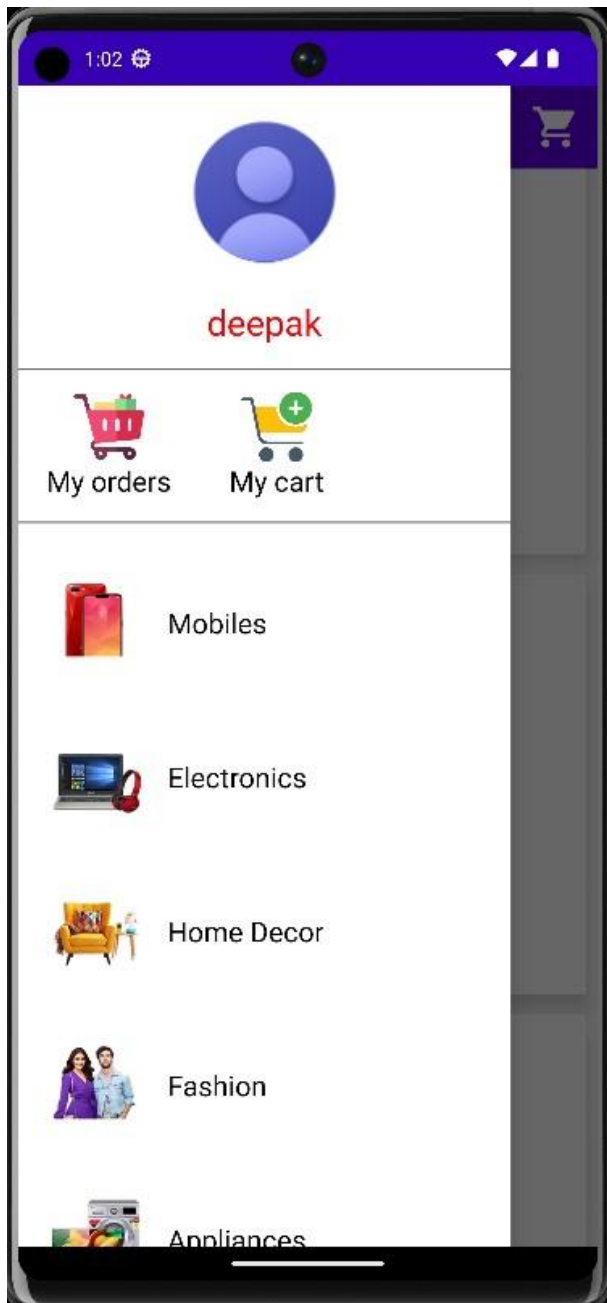


Figure 4.5 : ORDER AND WISHLIST

Description:
This page contains orders, wishlist and user account.



Figure 4.6 : PROFILE

Description:
This page contains user information such as user name, gmail, phone number and address.

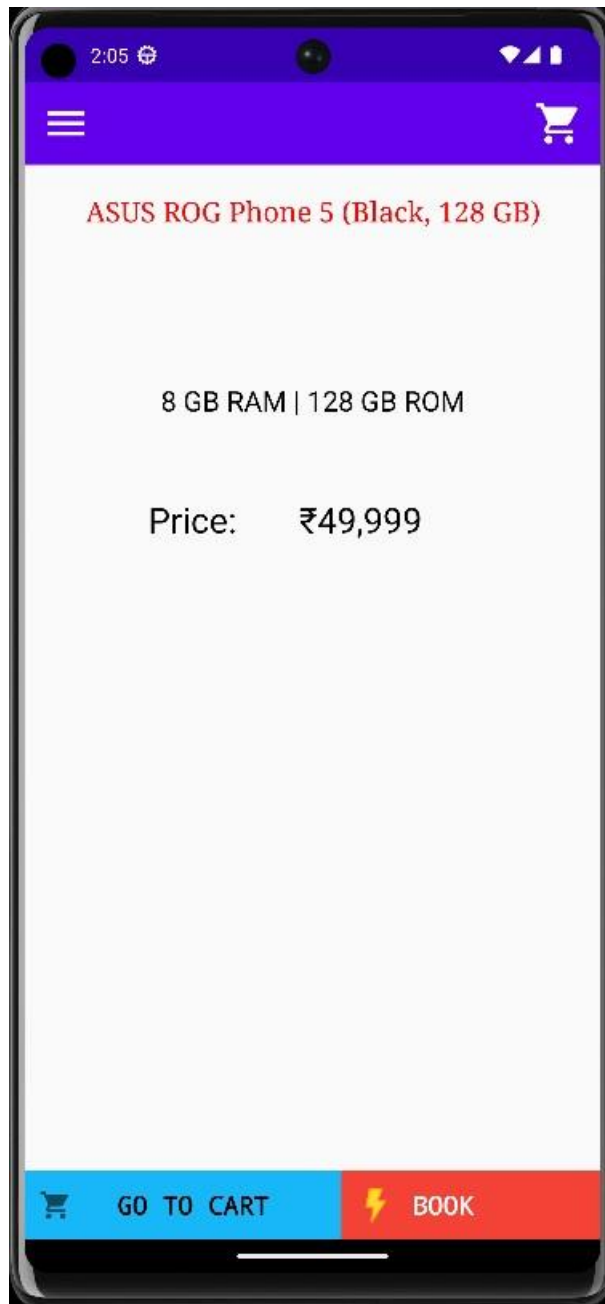


Figure 4.7 : DESCRIPTION OF PRODUCT

Description:

This page contains product description, go to cart option and book option.

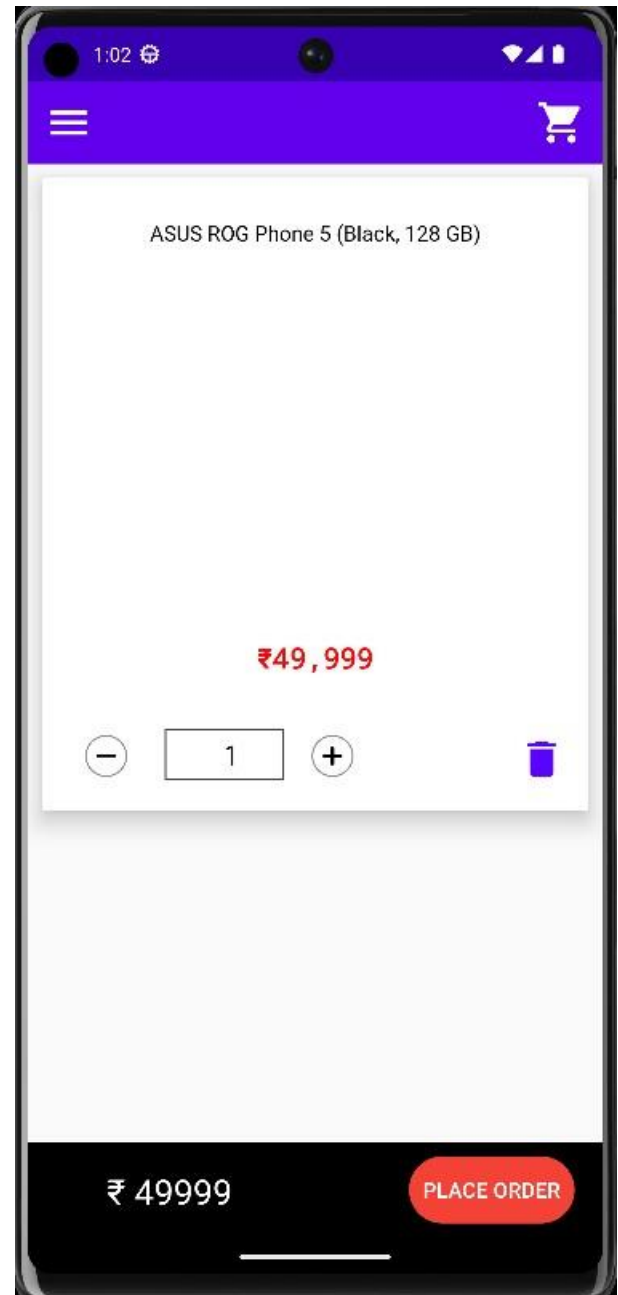


Figure 4.8 : MY CART

Description:

This page contains the product details in cart and place order option.

1:04

1 2 3

Address Details

deepak

9108215840

Enter Your Address

12,1st cross, Bangalore, India

NEXT

Figure 4.10 : ADDRESS DETAILS

Description:
This page contains address details of the user.

1:04

1 2 3

Payment Details

deepak

1234567891

123

₹ 49999

NEXT

Figure 4.9 : PAYMENT DETAILS

Description:
This page details such as user name, cvv number and amount.

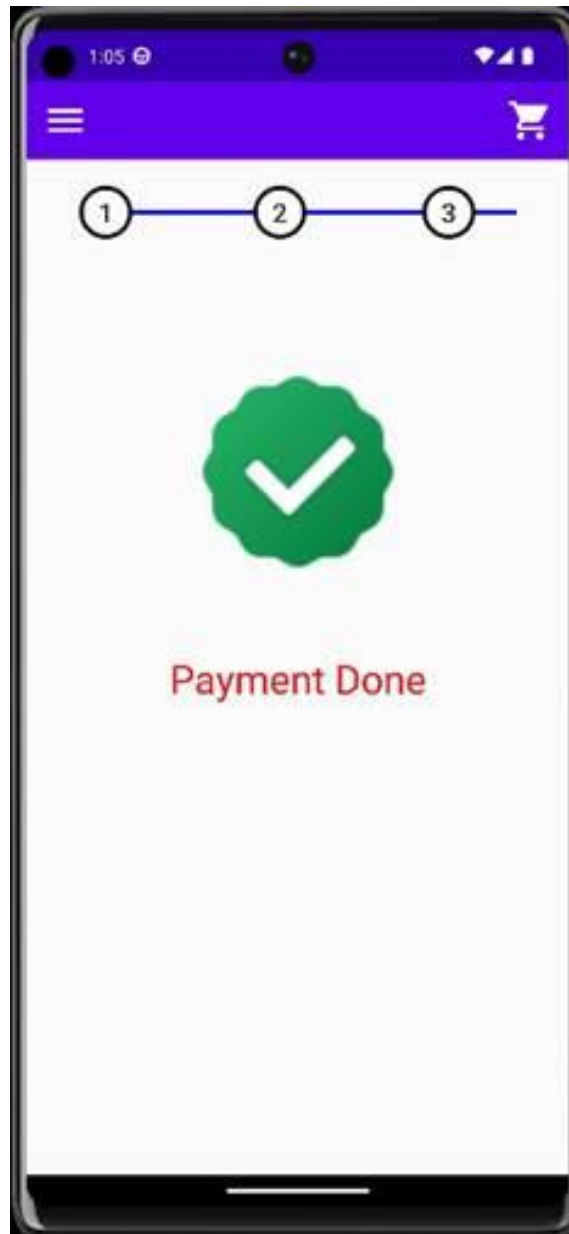


Figure 4.10 : PAYMENT COMPLETE

Description:
This page is the last of the payment procedure.

CONCLUSION

We would like to conclude that our project aims at providing state of the art design and shopping app ecommerce experience.

This includes various pages which are systematically linked to each other for seamless UI experience

Here are the key points summarizing the findings and implications of this e-commerce mobile application:

Accessibility and Convenience: The mobile application provides customers with anytime, anywhere access to products and services. It allows them to browse, purchase, and track orders on their smartphones or tablets, eliminating the need to visit physical stores. This convenience significantly enhances the overall shopping experience for customers.

Enhanced User Experience: The mobile application focuses on user-centric design, providing an intuitive and visually appealing interface. It offers features such as personalized recommendations, easy navigation, and secure payment options, creating a seamless and enjoyable shopping experience for customers.

Adaptability and Scalability: The mobile application is flexible and adaptable to changing market dynamics and evolving customer needs. It can be updated and enhanced with new features, promotions, and integrations, ensuring its relevance and scalability over time.

Challenges and Future Considerations: While the e-commerce mobile application offers numerous benefits, it is essential to address challenges such as ensuring data security, optimizing app performance, and providing responsive customer support. Additionally, the rapid advancements in mobile technology necessitate continuous updates and improvements to stay ahead in the competitive landscape.

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