**21BCT0313**

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**VIT VELLORE (VELLORE)**

**CSE IOT**

**ASSIGNMENT -4**

**Zomato Like interface with cards and composable**

**Kotlin File**

**MainActivity.kt**

package com.example.groceryapp  
  
import android.content.Intent  
import android.content.IntentSender  
import android.os.Bundle  
import androidx.activity.ComponentActivity  
import androidx.activity.compose.setContent  
import androidx.compose.foundation.Image  
import androidx.compose.foundation.background  
import androidx.compose.foundation.clickable  
import androidx.compose.foundation.layout.Arrangement  
import androidx.compose.foundation.layout.Box  
import androidx.compose.foundation.layout.Column  
import androidx.compose.foundation.layout.ExperimentalLayoutApi  
import androidx.compose.foundation.layout.FlowRow  
import androidx.compose.foundation.layout.Row  
import androidx.compose.foundation.layout.Spacer  
import androidx.compose.foundation.layout.fillMaxSize  
import androidx.compose.foundation.layout.fillMaxWidth  
import androidx.compose.foundation.layout.height  
import androidx.compose.foundation.layout.padding  
import androidx.compose.foundation.shape.RoundedCornerShape  
import androidx.compose.material3.Button  
import androidx.compose.material3.Card  
import androidx.compose.material3.CardDefaults.cardElevation  
import androidx.compose.material3.CardDefaults.*shape*import androidx.compose.material3.Icon  
import androidx.compose.material3.Text  
import androidx.compose.material3.TextField  
import androidx.compose.runtime.Composable  
import androidx.compose.ui.Alignment  
import androidx.compose.ui.Modifier  
import androidx.compose.ui.graphics.Brush  
import androidx.compose.ui.graphics.Color  
import androidx.compose.ui.graphics.Paint  
import androidx.compose.ui.graphics.painter.Painter  
import androidx.compose.ui.graphics.vector.ImageVector  
import androidx.compose.ui.layout.ContentScale  
import androidx.compose.ui.res.painterResource  
import androidx.compose.ui.res.vectorResource  
import androidx.compose.ui.text.TextStyle  
import androidx.compose.ui.text.font.FontWeight  
import androidx.compose.ui.tooling.preview.Preview  
import androidx.compose.ui.unit.dp  
import androidx.compose.ui.unit.sp  
import androidx.core.content.ContextCompat.startActivity  
import com.example.groceryapp.ui.theme.GroceryAppTheme  
import java.util.concurrent.Flow  
  
class MainActivity : ComponentActivity() {  
 @OptIn(ExperimentalLayoutApi::class)  
 override fun onCreate(savedInstanceState: Bundle?) {  
 super.onCreate(savedInstanceState)  
 *setContent* **{** GroceryAppTheme **{** // A surface container using the 'background' color from the theme  
 val description = "Brugers"  
  
  
  
 Column**{** Column(modifier = Modifier.*padding*(15.*dp*))  
 **{** Spacer(modifier = Modifier.*height*(30.*dp*))  
  
 Text(  
 text = "WELCOME BACK",  
 fontWeight = FontWeight.Black,  
 fontSize = 33.*sp*,  
 color = Color.Black,  
 letterSpacing = 2.*sp* )  
 Text(  
 text = "ANAADI!",  
 fontWeight = FontWeight.Black,  
 fontSize = 33.*sp*,  
 color = Color.Black,  
 )  
 Spacer(modifier = Modifier.*height*(60.*dp*))  
 Text(text = "What do you want to eat?",  
 fontWeight = FontWeight.Bold,  
 fontSize = 24.*sp* )  
 **}** FlowRow(  
 modifier = Modifier.*padding*(8.*dp*),  
 Arrangement.Center  
 )  
 **{** ImageCard(  
 painter = painterResource(id = R.drawable.*img*),  
 contentDescription = description,  
 title = "Burgers",  
 navigateTo = **{** val intent = Intent(this@MainActivity, Restaurant::class.*java*)  
 startActivity(intent)  
 **}**)  
 ImageCard(  
 painter = painterResource(id = R.drawable.*pizza*),  
 contentDescription = description,  
 title = "Pizzas",  
 navigateTo = **{** val intent = Intent(this@MainActivity, Restaurant::class.*java*)  
 startActivity(intent)  
 **}**)  
 ImageCard(  
 painter = painterResource(id = R.drawable.*biriyani*),  
 contentDescription = description,  
 title = "Biriyani",  
 navigateTo = **{** val intent = Intent(this@MainActivity, Restaurant::class.*java*)  
 startActivity(intent)  
 **}**)  
 ImageCard(  
 painter = painterResource(id = R.drawable.*naan*),  
 contentDescription = description,  
 title = "Amritsari Naan",  
 navigateTo = **{** val intent = Intent(this@MainActivity, Restaurant::class.*java*)  
 startActivity(intent)  
 **}**)  
  
  
 **}  
 }  
  
 }  
 }** }  
}  
  
@Composable  
fun Greeting(name: String, modifier: Modifier = Modifier) {  
 Text(  
 text = "Hello $name!",  
 modifier = modifier  
 )  
}  
  
  
  
@Composable  
fun ImageCard(  
 painter: Painter,  
 contentDescription: String,  
 title: String,  
 modifier: Modifier = Modifier,  
 navigateTo: () -> Unit // This is a lambda to handle navigation  
)  
{  
  
  
 Card (  
 modifier = modifier  
 .*fillMaxWidth*(0.5f)  
 .*padding*(8.*dp*)  
 .*height*(200.*dp*),  
  
 shape = *RoundedCornerShape*(15.*dp*),  
 elevation = cardElevation(5.*dp*),  
  
 )**{** Box(modifier = Modifier  
 .*height*(200.*dp*)  
 .*clickable* **{** navigateTo() **}**)  
 **{** Image( painter = painter?.*takeIf* **{ it** != null **}** ?: painterResource(id = R.drawable.*img*),  
 contentDescription = contentDescription,  
 contentScale = ContentScale.Crop )  
  
 Box(modifier = Modifier  
 .*fillMaxSize*()  
 .*background*(  
 Brush.verticalGradient(  
 colors = *listOf*(  
 Color.Transparent,  
 Color.Black  
 ),  
 startY = 300f  
 )  
 )  
 )  
  
 Box(modifier = Modifier  
 .*fillMaxSize*()  
 .*padding*(10.*dp*),  
 contentAlignment = Alignment.BottomCenter  
 )  
 **{** Text(text = title, style = TextStyle(color = Color.White, fontSize = 16.*sp*))  
  
 **}  
 }  
 }**}  
  
  
  
  
@OptIn(ExperimentalLayoutApi::class)  
@Preview(showBackground = true)  
@Composable  
fun GreetingPreview() {  
 GroceryAppTheme **{  
 }**}

Restaurant.kt

package com.example.groceryapp  
  
import android.os.Bundle  
import androidx.activity.ComponentActivity  
import androidx.activity.compose.setContent  
import androidx.compose.foundation.Image  
import androidx.compose.foundation.background  
import androidx.compose.foundation.clickable  
import androidx.compose.foundation.layout.Arrangement  
import androidx.compose.foundation.layout.Box  
import androidx.compose.foundation.layout.Column  
import androidx.compose.foundation.layout.ExperimentalLayoutApi  
import androidx.compose.foundation.layout.FlowRow  
import androidx.compose.foundation.layout.Row  
import androidx.compose.foundation.layout.Spacer  
import androidx.compose.foundation.layout.fillMaxSize  
import androidx.compose.foundation.layout.fillMaxWidth  
import androidx.compose.foundation.layout.height  
import androidx.compose.foundation.layout.padding  
import androidx.compose.foundation.rememberScrollState  
import androidx.compose.foundation.shape.RoundedCornerShape  
import androidx.compose.foundation.verticalScroll  
import androidx.compose.material3.Card  
import androidx.compose.material3.CardDefaults  
import androidx.compose.material3.MaterialTheme  
import androidx.compose.material3.Surface  
import androidx.compose.material3.Text  
import androidx.compose.runtime.Composable  
import androidx.compose.ui.Alignment  
import androidx.compose.ui.Modifier  
import androidx.compose.ui.graphics.Brush  
import androidx.compose.ui.graphics.Color  
import androidx.compose.ui.graphics.painter.Painter  
import androidx.compose.ui.layout.ContentScale  
import androidx.compose.ui.res.painterResource  
import androidx.compose.ui.text.TextStyle  
import androidx.compose.ui.text.font.FontWeight  
import androidx.compose.ui.tooling.preview.Preview  
import androidx.compose.ui.unit.dp  
import androidx.compose.ui.unit.sp  
import com.example.groceryapp.ui.theme.GroceryAppTheme  
  
class Restaurant : ComponentActivity() {  
 @OptIn(ExperimentalLayoutApi::class)  
 override fun onCreate(savedInstanceState: Bundle?) {  
 super.onCreate(savedInstanceState)  
 *setContent* **{** GroceryAppTheme **{** Column**{** Column(modifier = Modifier.*padding*(15.*dp*))  
 **{** Spacer(modifier = Modifier.*height*(30.*dp*))  
  
 Text(  
 text = "RESTAURANTS",  
 fontWeight = FontWeight.Black,  
 fontSize = 30.*sp*,  
 color = Color.Black,  
 )  
 **}** FlowRow(  
 modifier = Modifier  
 .*padding*(8.*dp*)  
 .*verticalScroll*(rememberScrollState()),  
 Arrangement.Center  
 )  
 **{** RestaurantCard(  
 painter = painterResource(id = R.drawable.*burgerking*),  
 contentDescription = "-Burger -5$ for one",  
 title = "Burger King",  
 rating = "4.3"  
 )  
 RestaurantCard(  
 painter = painterResource(id = R.drawable.*mcdonald*),  
 contentDescription = "-Burger -6$ for one",  
 title = "McDonalds",  
 rating = "4.4"  
 )  
 RestaurantCard(  
 painter = painterResource(id = R.drawable.*burgesingh*),  
 contentDescription = "-Burger -5$ for one",  
 title = "Burger Singh",  
 rating = "4.1"  
 )  
 RestaurantCard(  
 painter = painterResource(id = R.drawable.*burgercompany*),  
 contentDescription = "-Burger -6$ for one",  
 title = "Burger Company",  
 rating = "4.1"  
 )  
 **}  
 }  
 }  
 }** }  
}  
@Composable  
fun RestaurantCard(  
 painter: Painter,  
 contentDescription: String,  
 title: String,  
 modifier: Modifier = Modifier,  
 rating: String  
)  
{  
  
  
 Card (  
 modifier = modifier  
 .*fillMaxWidth*()  
 .*padding*(8.*dp*)  
 .*height*(300.*dp*),  
 shape = *RoundedCornerShape*(15.*dp*),  
 elevation = CardDefaults.cardElevation(5.*dp*),  
  
 )**{** Column(modifier = Modifier  
 .*background*(Color.White)  
 .*fillMaxSize*())**{** Box(modifier = Modifier  
 .*height*(200.*dp*)  
 .*clickable* **{}** .*background*(Color.White),  
 )  
 **{** Image(  
 painter = painter,  
 contentDescription = contentDescription,  
 contentScale = ContentScale.Crop  
 )  
  
 Box(  
 modifier = Modifier  
 .*fillMaxSize*()  
 .*background*(  
 Brush.verticalGradient(  
 colors = *listOf*(  
 Color.Transparent,  
 Color.Black  
 ),  
 startY = 300f  
 )  
 )  
 )  
 Box(  
 modifier = Modifier  
 .*fillMaxSize*()  
 .*padding*(20.*dp*),  
 contentAlignment = Alignment.TopEnd  
 )  
 **{** Image(  
 painter = painterResource(id = R.drawable.*tabler\_heart*),  
 contentDescription = contentDescription,  
 contentScale = ContentScale.Crop  
 )  
 **}  
 }** Row(  
 modifier = Modifier  
 .*fillMaxWidth*()  
 .*background*(Color.White)  
 .*padding*(15.*dp*),  
 Arrangement.SpaceBetween  
 )  
 **{** Text(text = title, style = TextStyle(color = Color.Black, fontSize = 25.*sp*, fontWeight = FontWeight.Bold))  
 val ratingGreen = *Color*(0, 102, 0)  
 Column(  
 modifier = Modifier  
 .*background*(ratingGreen, shape = *RoundedCornerShape*(5.*dp*))  
 .*padding*(5.*dp*),  
 )**{** Text(  
 text = rating,  
 fontWeight = FontWeight.Bold,  
 color = Color.White,  
 fontSize = 15.*sp* )  
 **}  
 }** Box(modifier = Modifier  
 .*padding*(horizontal = 15.*dp*)  
 .*background*(Color.White))**{** Text(  
 text = contentDescription,  
 color = Color.Gray,  
 fontSize = 15.*sp*,  
 )  
 **}  
  
  
 }  
 }**}  
@Composable  
fun Greeting2(name: String, modifier: Modifier = Modifier) {  
 Text(  
 text = "Hello $name!",  
 modifier = modifier  
 )  
}  
  
@OptIn(ExperimentalLayoutApi::class)  
@Preview(showBackground = true)  
@Composable  
fun GreetingPreview2() {  
 GroceryAppTheme **{  
  
 }**}

OUTPUT –



 