NAME: Subhraneel Sil

Registration Number: 20BEC1307

Week: 2

Building a Blood Bank Application

Class MainActivity

Code:

```kotlin
package com.example.Week2_20BEC1307

import android.content.Intent
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.Column
import androidx.compose.foundation.layout.fillMaxSize
import androidx.compose.foundation.layout.fillMaxWidth
import androidx.compose.foundation.layout.padding
import androidx.compose.foundation.layout.size
import androidx.compose.foundation.shape.RoundedCornerShape
import androidx.compose.foundation.text.KeyboardOptions
import androidx.compose.material.icons.Icons
import androidx.compose.material3.Button
import androidx.compose.material3.ButtonDefaults
import androidx.compose.material3.ExperimentalMaterial3Api
import androidx.compose.material3.Icon
import androidx.compose.material3.IconButton
import androidx.compose.material3.MaterialTheme
import androidx.compose.material3.OutlinedTextField
import androidx.compose.material3.Surface
import androidx.compose.material3.Text
import androidx.compose.material3.TextField
import androidx.compose.material3.TextFieldDefaults
import androidx.compose.runtime.Composable
import androidx.compose.runtime.MutableState
import androidx.compose.runtime.getValue
import androidx.compose.runtime.mutableStateOf
import androidx.compose.runtime.remember
import androidx.compose.runtime.setValue
import androidx.compose.ui.Alignment
import androidx.compose.ui.Modifier
import androidx.compose.ui.draw.clip
import androidx.compose.ui.graphics.Color
import androidx.compose.ui.graphics.painter.Painter
import androidx.compose.ui.platform.LocalContext
import androidx.compose.ui.res.painterResource
import androidx.compose.ui.text.input.KeyboardType
import androidx.compose.ui.text.input.PasswordVisualTransformation
import androidx.compose.ui.text.input.TextFieldValue
import androidx.compose.ui.text.input.VisualTransformation
```

```kotlin
import androidx.compose.ui.tooling.preview.Preview
import androidx.compose.ui.unit.dp
import androidx.constraintlayout.compose.Visibility
import com.example.myapplication.R
import com.example.myapplication.SecondActivity
import com.example.myapplication.ui.theme.MyApplicationTheme
import kotlin.reflect.KProperty1

class MainActivity : ComponentActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContent {

            Column(
                modifier=Modifier.fillMaxSize().background(Color.White),
                horizontalAlignment = Alignment.CenterHorizontally
            ) {
                ImageWithBackgroundColor()
                OutLineTextFieldSample()
                Password()

                Button1()
            }
        }

    }
}
@Composable
fun ImageWithBackgroundColor() {
    Image(
        painter = painterResource(id = R.drawable.bloodblac),
        contentDescription = "",
        modifier = Modifier
            .size(400.dp)
            .background(Color.White)
//          .clip(RoundedCornerShape(10.dp))
            .padding(100.dp)
    )
}
@OptIn(ExperimentalMaterial3Api::class)
@Composable
fun CommonTextFieldPassword(
    text: MutableState<String>,
    placeholder: String,
    trailingIcon: Int = R.drawable.ic_on,
    visibility: MutableState<Boolean> = remember { mutableStateOf(false) }
) {
    TextField(
        value = text.value,
        onValueChange = { text.value = it },
        colors = TextFieldDefaults.textFieldColors(

        ),
        label = { Text(text = placeholder) },
        trailingIcon = {
            Icon(
                painter = painterResource(id = trailingIcon),
                contentDescription = "",
                modifier = Modifier
                    .size(25.dp)
                    .clickable {
```

```kotlin
                                visibility.value = !visibility.value
                    },

            )
        },
        modifier = Modifier.fillMaxWidth(),
        visualTransformation = if (visibility.value)
VisualTransformation.None else PasswordVisualTransformation()
    )
}
@Composable
fun Button1() {
    val mContext = LocalContext.current

    Button(onClick = {
        mContext.startActivity(Intent(mContext,
SecondActivity::class.java))
    },
        colors = ButtonDefaults.outlinedButtonColors(containerColor =
Color.Red,contentColor = Color.White),
        elevation =  ButtonDefaults.elevatedButtonElevation(
        defaultElevation = 10.dp,
        pressedElevation = 15.dp,
        disabledElevation = 0.dp
    )) {
        Text(text = "Submit")
    }
}


@OptIn(ExperimentalMaterial3Api::class)
@Composable
fun Password() {
    var password by remember { mutableStateOf("") }

    // Creating a variable to store toggle state
    var passwordVisible by remember { mutableStateOf(false) }
    OutlinedTextField(
        value = password,
        onValueChange = { password = it },
        label = { Text("Password") },
        singleLine = true,
        placeholder = { Text("Password") },
        visualTransformation = if (passwordVisible)
VisualTransformation.None else PasswordVisualTransformation(),
        keyboardOptions = KeyboardOptions(keyboardType =
KeyboardType.Password),
        trailingIcon = {
            val image = if (passwordVisible)
                painterResource(id = R.drawable.ic_on)
            else painterResource(id = R.drawable.ic_0ff)

            // Localized description for accessibility services
            val description = if (passwordVisible) "Hide password" else
"Show password"

            // Toggle button to hide or display password
            IconButton(onClick = {passwordVisible = !passwordVisible}){
                Icon(image , contentDescription = "Visibility icon")
            }
//          colors = TextFieldDefaults.textFieldColors(backgroundColor =
```

```kotlin
            Color.Cyan)
        }
    )
}



@OptIn(ExperimentalMaterial3Api::class)
@Composable
fun OutLineTextFieldSample() {
    var text by remember { mutableStateOf(TextFieldValue("")) }
    OutlinedTextField(
        value = text,
        label = { Text(text = "Enter Your Email") },
        keyboardOptions = KeyboardOptions(keyboardType =
KeyboardType.Email),
        onValueChange = {
            text = it
        }
    )
}
@Composable
fun Greeting(name: String, modifier: Modifier = Modifier) {
    Text(
        text = "Hello $name!",
        modifier = modifier
    )
}

@Preview(showBackground = true)
@Composable
fun GreetingPreview() {
    MyApplicationTheme {
        Greeting("Android")
    }
}
```

Class Second Activity

Code:

```kotlin
package com.example.myapplication

import android.content.Intent
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.layout.Arrangement
import androidx.compose.foundation.layout.Box
import androidx.compose.foundation.layout.Column
import androidx.compose.foundation.layout.fillMaxSize
import androidx.compose.foundation.layout.fillMaxWidth
import androidx.compose.foundation.layout.padding
import androidx.compose.foundation.layout.requiredHeight
import androidx.compose.foundation.layout.size
```

```kotlin
import androidx.compose.foundation.shape.CircleShape
import androidx.compose.material3.Button
import androidx.compose.material3.ButtonColors
import androidx.compose.material3.ButtonDefaults
import androidx.compose.material3.ExperimentalMaterial3Api
import androidx.compose.material3.MaterialTheme
import androidx.compose.material3.Scaffold
import androidx.compose.material3.Surface
import androidx.compose.material3.Text
import androidx.compose.material3.TopAppBar
import androidx.compose.material3.contentColorFor
import androidx.compose.runtime.Composable
import androidx.compose.ui.Alignment
import androidx.compose.ui.Modifier
import androidx.compose.ui.draw.clip
import androidx.compose.ui.graphics.Color
import androidx.compose.ui.platform.LocalContext
import androidx.compose.ui.res.painterResource
import androidx.compose.ui.tooling.preview.Preview
import androidx.compose.ui.unit.dp
import androidx.compose.ui.unit.sp
import com.example.myapplication.ui.theme.MyApplicationTheme

class SecondActivity : ComponentActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContent {
            Column(
                modifier = Modifier.fillMaxSize().background(Color.Red),
                verticalArrangement = Arrangement.Center,
                horizontalAlignment = Alignment.CenterHorizontally
            ) {
                MainContent2()
            }

        }
    }
}


@OptIn(ExperimentalMaterial3Api::class)
@Composable
fun MainContent2() {
    val mContext = LocalContext.current
    Box(
        modifier = Modifier.fillMaxWidth(),
        contentAlignment = Alignment.Center
    ) {
        Column(verticalArrangement = Arrangement.Center,
horizontalAlignment = Alignment.Start) {
            Image(
                painter = painterResource(id = R.drawable.bloodnewicon),
                contentDescription = "",
                modifier = Modifier
                    .size(100.dp)
//                    .clip(CircleShape)
                    .background(Color.Red)
//                .padding(.dp)
            )
            Button(
                onClick = {
```

```kotlin
            mContext.startActivity(Intent(mContext,
ThirdActivity::class.java))
                },
                colors = ButtonDefaults.outlinedButtonColors(containerColor
= Color.White,contentColor = Color.Red),
                elevation = ButtonDefaults.elevatedButtonElevation(
                    defaultElevation = 10.dp,
                    pressedElevation = 15.dp,
                    disabledElevation = 0.dp
                )
            ) {
                Text(text = "Donor")
            }
            Image(
                painter = painterResource(id = R.drawable.bloodnewicon),
                contentDescription = "",
                modifier = Modifier
                    .size(100.dp)
//                    .clip(CircleShape)
                    .background(Color.Red)
//                  .padding(.dp)
            )
            Button(
                onClick = {
            mContext.startActivity(Intent(mContext,
ThirdActivity::class.java))
                },
//                  modifier=Modifier.background(Color.Black),
                colors = ButtonDefaults.outlinedButtonColors(containerColor
= Color.White,contentColor = Color.Red),
                elevation = ButtonDefaults.elevatedButtonElevation(
                    defaultElevation = 10.dp,
                    pressedElevation = 15.dp,
                    disabledElevation = 0.dp
                )
            ) {
                Text(text = "Acceptor")
            }
        }
    }
}


@Composable
fun Greeting3(name: String, modifier: Modifier = Modifier) {
    Text(
        text = "Hello $name!",
        modifier = modifier
    )
}

@Preview(showBackground = true)
@Composable
fun GreetingPreview3() {
    MyApplicationTheme {
        MainContent2()
    }
}
```

Class ThirdActivity

Code:

```kotlin
package com.example.myapplication

import android.content.Intent
import android.os.Bundle
import androidx.activity.ComponentActivity
import androidx.activity.compose.setContent
import androidx.compose.foundation.background
import androidx.compose.foundation.layout.Arrangement
import androidx.compose.foundation.layout.Column
import androidx.compose.foundation.layout.fillMaxSize
import androidx.compose.material3.Button
import androidx.compose.material3.ButtonDefaults
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.Color
import androidx.compose.ui.platform.LocalContext
import androidx.compose.ui.tooling.preview.Preview
import androidx.compose.ui.unit.dp
import com.example.myapplication.ui.theme.MyApplicationTheme

class ThirdActivity : ComponentActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContent {
            Column(modifier = Modifier
                .fillMaxSize()
                .background(Color.Black),
                verticalArrangement = Arrangement.Center,
                horizontalAlignment = Alignment.CenterHorizontally
            ) {
                Buttons1()
                Buttons2()
                Buttons3()
                Buttons4()
                Buttons5()
            }
        }

    }
}
@Composable
fun Buttons1() {
    val mContext = LocalContext.current

    Button(onClick = {
//        mContext.startActivity(Intent(mContext,
SecondActivity::class.java))
    },
        colors = ButtonDefaults.outlinedButtonColors(containerColor =
Color.Red,contentColor = Color.White),
```

```kotlin
            elevation =  ButtonDefaults.elevatedButtonElevation(
                defaultElevation = 10.dp,
                pressedElevation = 15.dp,
                disabledElevation = 0.dp
        )) {
        Text(text = "A+")
    }
}
@Composable
fun Buttons2() {
    val mContext = LocalContext.current

    Button(onClick = {
//        mContext.startActivity(Intent(mContext,
SecondActivity::class.java))
    },
        colors = ButtonDefaults.outlinedButtonColors(containerColor =
Color.Red,contentColor = Color.White),
        elevation =  ButtonDefaults.elevatedButtonElevation(
            defaultElevation = 10.dp,
            pressedElevation = 15.dp,
            disabledElevation = 0.dp
        )) {
        Text(text = "B+")
    }
}
@Composable
fun Buttons3() {
    val mContext = LocalContext.current

    Button(onClick = {
//        mContext.startActivity(Intent(mContext,
SecondActivity::class.java))
    },
        colors = ButtonDefaults.outlinedButtonColors(containerColor =
Color.Red,contentColor = Color.White),
        elevation =  ButtonDefaults.elevatedButtonElevation(
            defaultElevation = 10.dp,
            pressedElevation = 15.dp,
            disabledElevation = 0.dp
        )) {
        Text(text = "AB+")
    }
}
@Composable
fun Buttons4() {
    val mContext = LocalContext.current

    Button(onClick = {
//        mContext.startActivity(Intent(mContext,
SecondActivity::class.java))
    },
        colors = ButtonDefaults.outlinedButtonColors(containerColor =
Color.Red,contentColor = Color.White),
        elevation =  ButtonDefaults.elevatedButtonElevation(
            defaultElevation = 10.dp,
            pressedElevation = 15.dp,
            disabledElevation = 0.dp
        )) {
        Text(text = "O+")
    }
```

```kotlin
}
@Composable
fun Buttons5() {
    val mContext = LocalContext.current

    Button(onClick = {
//        mContext.startActivity(Intent(mContext,
SecondActivity::class.java))
    },
        colors = ButtonDefaults.outlinedButtonColors(containerColor =
Color.Red,contentColor = Color.White),
        elevation =  ButtonDefaults.elevatedButtonElevation(
            defaultElevation = 10.dp,
            pressedElevation = 15.dp,
            disabledElevation = 0.dp
        )) {
        Text(text = "Rhesus Negative")
    }
}

@Composable
fun Greeting4(name: String, modifier: Modifier = Modifier) {
    Text(
        text = "Hello $name!",
        modifier = modifier
    )
}

@Preview(showBackground = true)
@Composable
fun GreetingPreview4() {
    MyApplicationTheme {
        Greeting4("Android")
    }
}
```

Output Screenshots: