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# MOBILE APPLICATION DEVELOPMENT USING KOTLIN

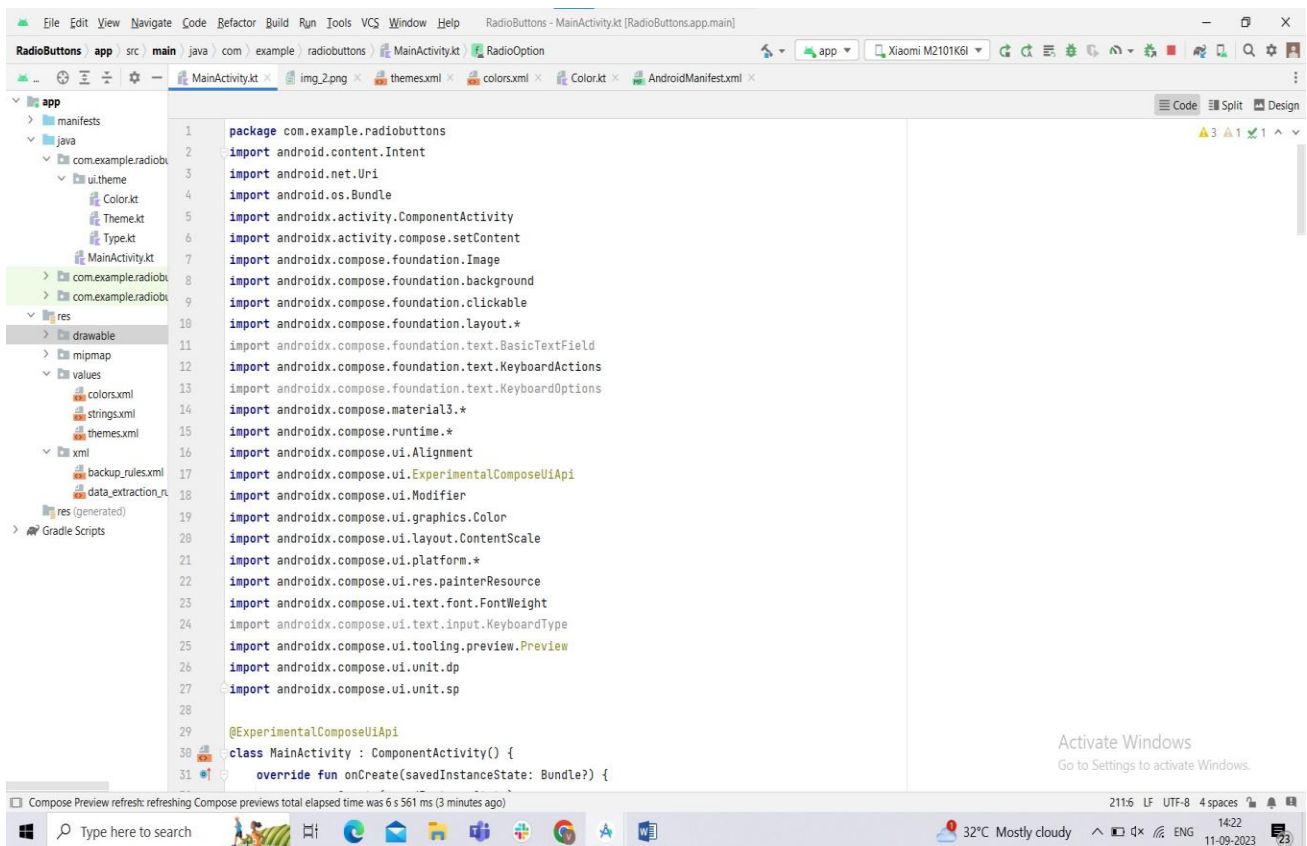
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SMART BRIDGE- ANDROID APP DEVELOPMENT

ASSIGNMENT-3 REPORT

Name : Adit Nandi

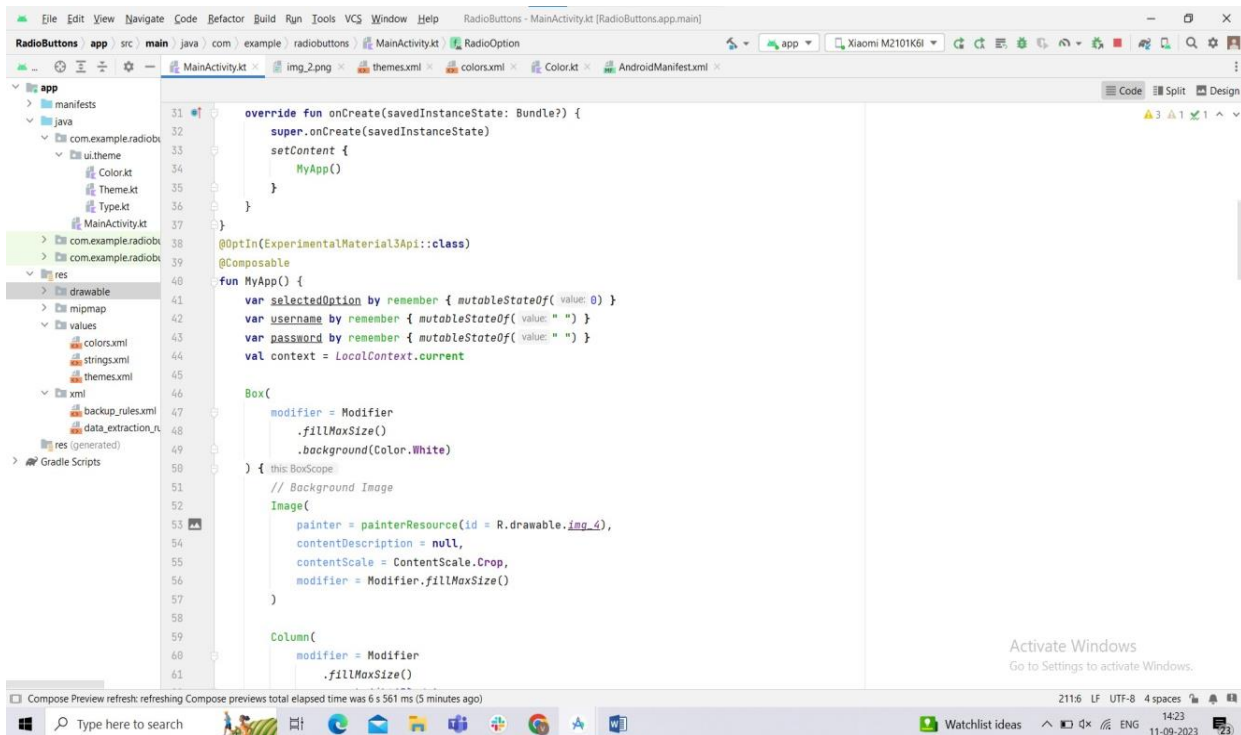
## Snippets of the code



```

1 package com.example.radiobuttons
2 import android.content.Intent
3 import android.net.Uri
4 import android.os.Bundle
5 import androidx.activity.ComponentActivity
6 import androidx.activity.compose.setContent
7 import androidx.compose.foundation.Image
8 import androidx.compose.foundation.background
9 import androidx.compose.foundation.clickable
10 import androidx.compose.foundation.layout.*
11 import androidx.compose.foundation.text.BasicTextField
12 import androidx.compose.foundation.text.KeyboardActions
13 import androidx.compose.foundation.text.KeyboardOptions
14 import androidx.compose.material3.*
15 import androidx.compose.runtime.*
16 import androidx.compose.ui.Alignment
17 import androidx.compose.ui.ExperimentalComposeUiApi
18 import androidx.compose.ui.Modifier
19 import androidx.compose.ui.graphics.Color
20 import androidx.compose.ui.layout.ContentScale
21 import androidx.compose.ui.platform.*
22 import androidx.compose.ui.res.painterResource
23 import androidx.compose.ui.text.Font
24 import androidx.compose.ui.text.input.KeyboardType
25 import androidx.compose.ui.tooling.preview.Preview
26 import androidx.compose.ui.unit.dp
27 import androidx.compose.ui.unit.sp
28
29 @ExperimentalComposeUiApi
30 class MainActivity : ComponentActivity() {
31     override fun onCreate(savedInstanceState: Bundle?) {

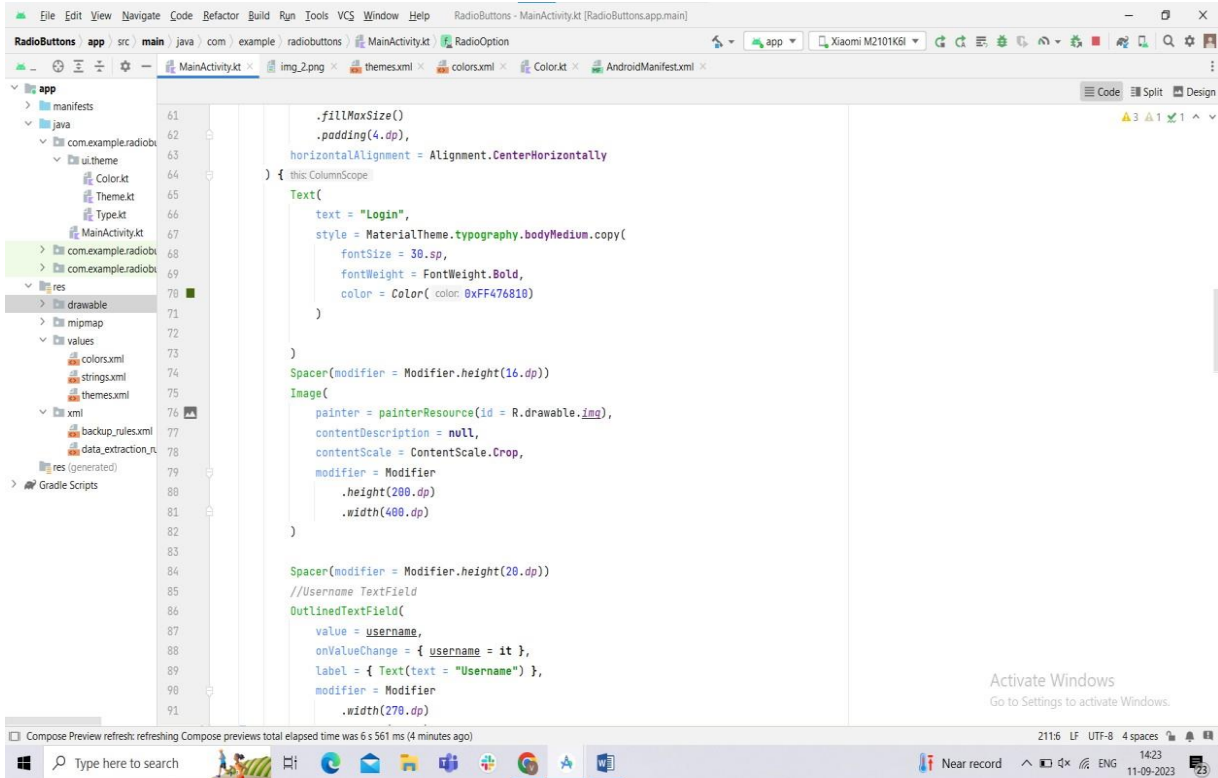
```



```

31     override fun onCreate(savedInstanceState: Bundle?) {
32         super.onCreate(savedInstanceState)
33         setContent {
34             MyApp()
35         }
36     }
37
38     @OptIn(ExperimentalMaterial3Api::class)
39     @Composable
40     fun MyApp() {
41         var selectedOption by remember { mutableStateOf(0) }
42         var username by remember { mutableStateOf("") }
43         var password by remember { mutableStateOf("") }
44         val context = LocalContext.current
45
46         Box(
47             modifier = Modifier
48                 .fillMaxSize()
49                 .background(Color.White)
50         ) {
51             // Background Image
52             Image(
53                 painter = painterResource(id = R.drawable.img_4),
54                 contentDescription = null,
55                 contentScale = ContentScale.Crop,
56                 modifier = Modifier.fillMaxSize()
57             )
58
59             Column(
60                 modifier = Modifier
61                     .fillMaxSize()

```



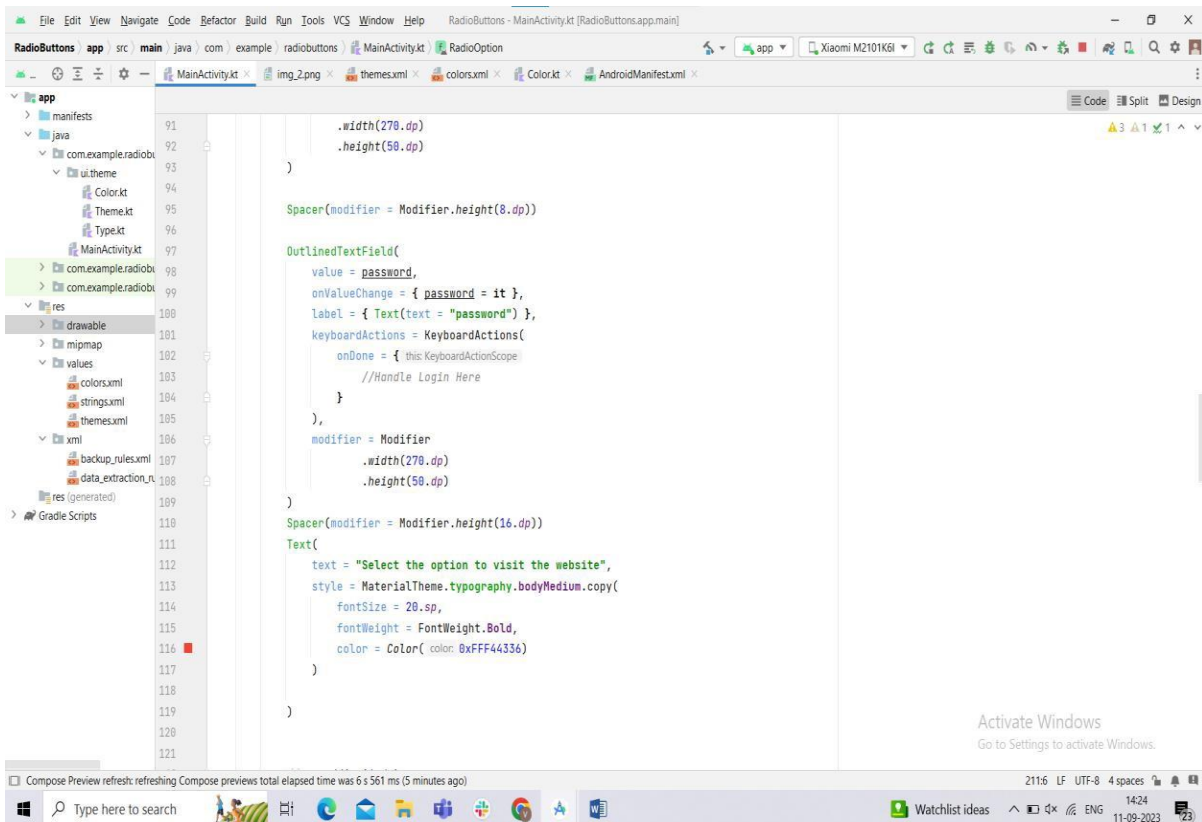
```

61         .fillMaxSize()
62         .padding(4.dp),
63         horizontalAlignment = Alignment.CenterHorizontally
64     ) { this.ColumnScope {
65         Text(
66             text = "Login",
67             style = MaterialTheme.typography.bodyMedium.copy(
68                 fontSize = 30.sp,
69                 fontWeight = FontWeight.Bold,
70                 color = Color( color: 0xFF476810)
71             )
72         )
73         Spacer(modifier = Modifier.height(16.dp))
74         Image(
75             painter = painterResource(id = R.drawable.img),
76             contentDescription = null,
77             contentScale = ContentScale.Crop,
78             modifier = Modifier
79                 .height(200.dp)
80                 .width(400.dp)
81         )
82
83         Spacer(modifier = Modifier.height(20.dp))
84         //Username TextField
85         OutlinedTextField(
86             value = username,
87             onChange = { username = it },
88             label = { Text(text = "Username") },
89             modifier = Modifier
90                 .width(270.dp)
91

```

Compose Preview refresh: refreshing Compose previews total elapsed time was 6 s 561 ms (4 minutes ago)

211:6 LF UTF-8 4 spaces 14:23 11-09-2023



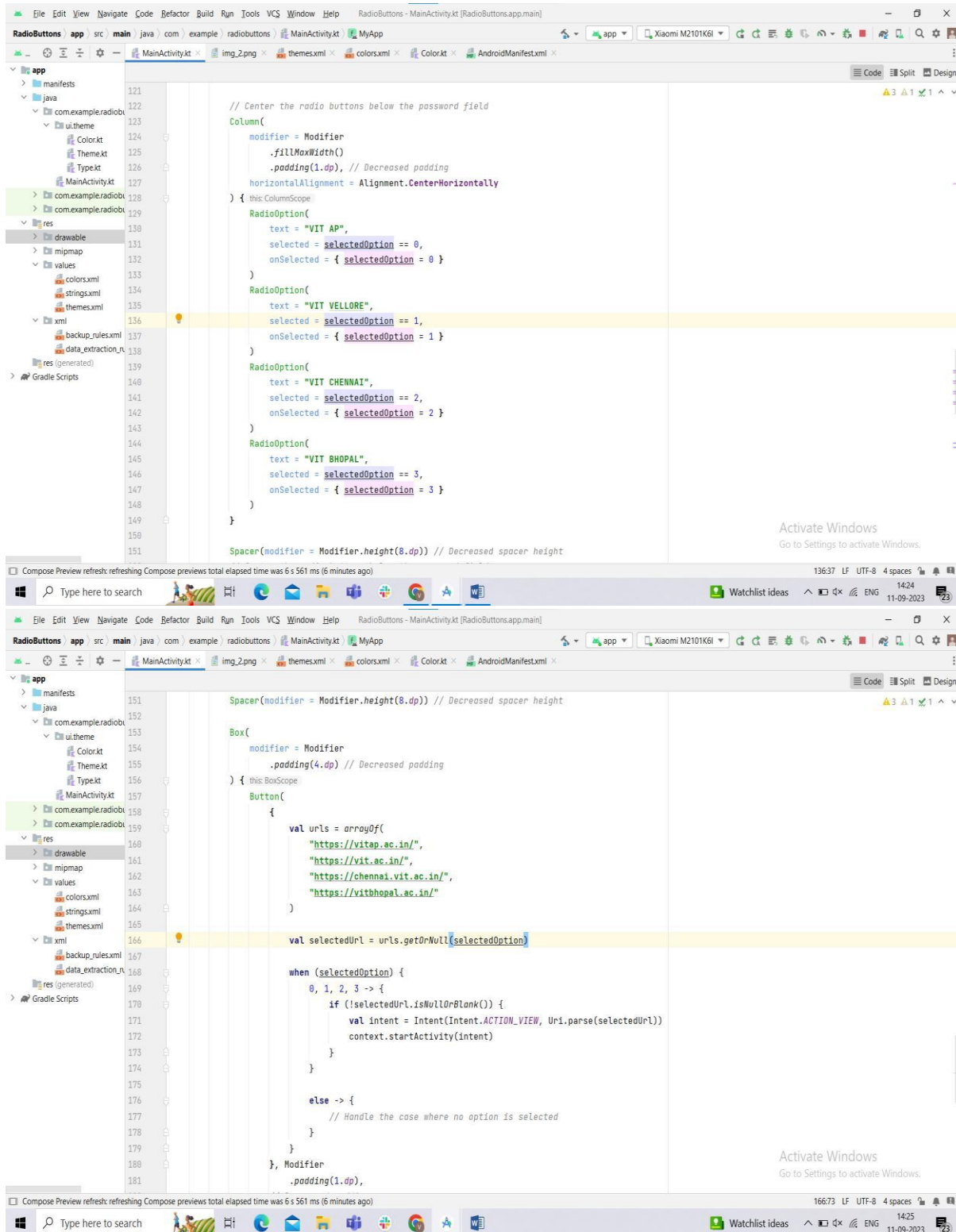
```

91         .width(270.dp)
92         .height(50.dp)
93     )
94
95     Spacer(modifier = Modifier.height(8.dp))
96
97     OutlinedTextField(
98         value = password,
99         onChange = { password = it },
100        label = { Text(text = "password") },
101        keyboardActions = KeyboardActions(
102            onDone = { this.KeyboardActionScope {
103                //Handle Login Here
104            }
105        },
106        modifier = Modifier
107            .width(270.dp)
108            .height(50.dp)
109    )
110
111    Spacer(modifier = Modifier.height(16.dp))
112    Text(
113        text = "Select the option to visit the website",
114        style = MaterialTheme.typography.bodyMedium.copy(
115            fontSize = 20.sp,
116            fontWeight = FontWeight.Bold,
117            color = Color( color: 0xFFFF44336)
118        )
119    )
120
121

```

Compose Preview refresh: refreshing Compose previews total elapsed time was 6 s 561 ms (5 minutes ago)

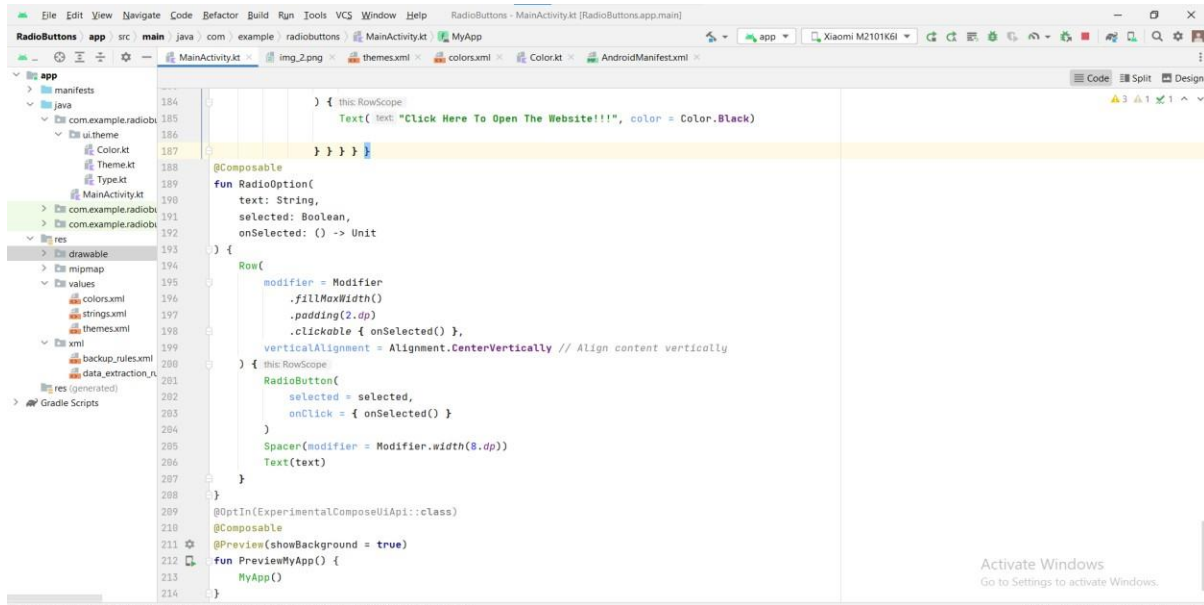
211:6 LF UTF-8 4 spaces 14:24 11-09-2023



```

121 // Center the radio buttons below the password field
122 Column(
123     modifier = Modifier
124         .fillMaxWidth()
125         .padding(1.dp), // Decreased padding
126     horizontalAlignment = Alignment.CenterHorizontally
127 ) { this ColumnScope
128     RadioOption(
129         text = "VIT AP",
130         selected = selectedOption == 0,
131         onSelected = { selectedOption = 0 }
132     )
133     RadioOption(
134         text = "VIT VELLORE",
135         selected = selectedOption == 1,
136         onSelected = { selectedOption = 1 }
137     )
138     RadioOption(
139         text = "VIT CHENNAI",
140         selected = selectedOption == 2,
141         onSelected = { selectedOption = 2 }
142     )
143     RadioOption(
144         text = "VIT BHOPAL",
145         selected = selectedOption == 3,
146         onSelected = { selectedOption = 3 }
147     )
148 }
149
150 Spacer(modifier = Modifier.height(8.dp)) // Decreased spacer height
151
152 Box(
153     modifier = Modifier
154         .padding(4.dp) // Decreased padding
155 ) { this BoxScope
156     Button(
157         {
158             val urls = arrayOf(
159                 "https://vitap.ac.in/",
160                 "https://vit.ac.in/",
161                 "https://chennai.vit.ac.in/",
162                 "https://vithhopal.ac.in/"
163             )
164             val selectedUrl = urls.getOrNull(selectedOption)
165
166             when (selectedOption) {
167                 0, 1, 2, 3 -> {
168                     if (!selectedUrl.isNullOrEmpty()) {
169                         val intent = Intent(Intent.ACTION_VIEW, Uri.parse(selectedUrl))
170                         context.startActivity(intent)
171                     }
172                 }
173                 else -> {
174                     // Handle the case where no option is selected
175                 }
176             }
177         }, Modifier
178         .padding(1.dp),
179     )
180 }
181

```

**CODE:**

```

package com.example.radiobuttons
import android.content.Intent
import android.net.Uri
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.*
import androidx.compose.foundation.text.BasicTextField
import androidx.compose.foundation.text.KeyboardActions
import androidx.compose.foundation.text.KeyboardOptions
import androidx.compose.material3.*
import androidx.compose.runtime.*
import androidx.compose.ui.Alignment
import androidx.compose.ui.ExperimentalComposeUiApi
import androidx.compose.ui.Modifier
import androidx.compose.ui.graphics.Color
import androidx.compose.ui.layout.ContentScale
import androidx.compose.ui.platform.*
import androidx.compose.ui.res.painterResource
import androidx.compose.ui.text.font.FontWeight
import androidx.compose.ui.text.input.KeyboardType
import androidx.compose.ui.tooling.preview.Preview
import androidx.compose.ui.unit.dp
import androidx.compose.ui.unit.sp

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

@OptIn(ExperimentalMaterial3Api::class)
@Composable
fun MyApp() {

```

```

var selectedOption by remember {mutableStateOf( 0)}
var username by remember {mutableStateOf( " ")}
var password by remember {mutableStateOf( " ")}
val context = LocalContext.current

Box(
    modifier = Modifier
        .fillMaxSize()
        .background(Color.White)
){
    // Background Image
    Image(
        painter = painterResource(id = R.drawable.img_4),
        contentDescription = null,
        contentScale = ContentScale.Crop,
        modifier = Modifier.fillMaxSize()
    )

    Column(
        modifier = Modifier
            .fillMaxSize()
            .padding(4.dp),
        horizontalAlignment = Alignment.CenterHorizontally
    ){
        Text(
            text = "Login",
            style = MaterialTheme.typography.bodyMedium.copy(
                fontSize = 30.sp,
                fontWeight = FontWeight.Bold,
                color = Color(0xFF476810)
            )
        )

        Spacer(modifier = Modifier.height(16.dp))
        Image(
            painter = painterResource(id = R.drawable.img),
            contentDescription = null,
            contentScale = ContentScale.Crop,
            modifier = Modifier
                .height(200.dp)
                .width(400.dp)
        )

        Spacer(modifier = Modifier.height(20.dp))
        //Username TextField
        OutlinedTextField(
            value = username,
            onChange = {username =it },
            label = { Text(text = "Username") },
            modifier = Modifier
                .width(270.dp)
                .height(50.dp)
        )

        Spacer(modifier = Modifier.height(8.dp))

        OutlinedTextField(
            value = password,
            onChange = {password =it },
            label = { Text(text = "password") },
            keyboardActions = KeyboardActions(

```



```

        onDone = {
            //Handle Login Here
        }
    },
    modifier = Modifier
        .width(270.dp)
        .height(50.dp)
)
Spacer(modifier = Modifier.height(16.dp))
Text(
    text = "Select the option to visit the website",
    style = MaterialTheme.typography.bodyMedium.copy(
        fontSize = 20.sp,
        fontWeight = FontWeight.Bold,
        color = Color(0xFFFF44336)
    )
)

// Center the radio buttons below the password field
Column(
    modifier = Modifier
        .fillMaxWidth()
        .padding(1.dp), // Decreased padding
    horizontalAlignment = Alignment.CenterHorizontally
){
    RadioOption(
        text = "VIT AP",
        selected = selectedOption == 0,
        onSelected = {selectedOption = 0 }
    )
    RadioOption(
        text = "VIT VELLORE",
        selected = selectedOption == 1,
        onSelected = {selectedOption = 1 }
    )
    RadioOption(
        text = "VIT CHENNAI",
        selected = selectedOption == 2,
        onSelected = {selectedOption = 2 }
    )
    RadioOption(
        text = "VIT BHOPAL",
        selected = selectedOption == 3,
        onSelected = {selectedOption = 3 }
    )
}

height
Spacer(modifier = Modifier.height(8.dp)) // Decreased spacer

Box(
    modifier = Modifier
        .padding(4.dp) // Decreased padding
){
    Button(
        {
            val urls =arrayOf(
                "https://vitap.ac.in/",
                "https://vit.ac.in/",

```

```

        "https://chennai.vit.ac.in/",
        "https://vitbhopal.ac.in/"
    )

    val selectedUrl = urls.getOrNull(selectedOption)

    when (selectedOption) {
        0, 1, 2, 3 -> {
            if (!selectedUrl.isNullOrEmpty()) {
                val intent = Intent(Intent.ACTION_VIEW,
Uri.parse(selectedUrl))
                context.startActivity(intent)
            }

            else -> {
                // Handle the case where no option is
selected
            }
        }, Modifier
        .padding(1.dp),
        // Decreased padding
    ){
        Text("Click Here To Open The Website!!!", color =
Color.Black)
    }
}

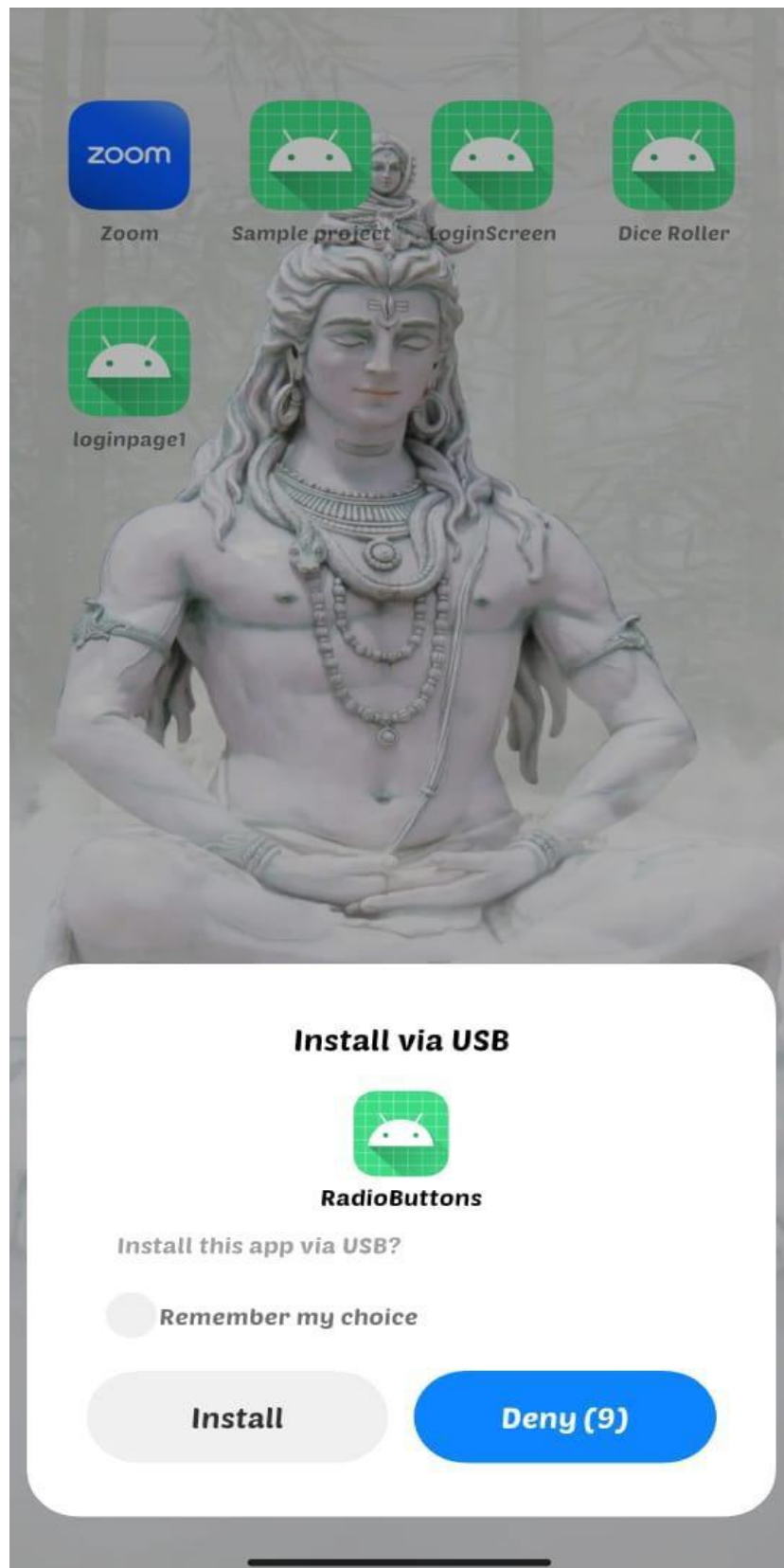
@Composable
fun RadioOption(
    text: String,
    selected: Boolean,
    onSelected: () -> Unit
) {
    Row(
        modifier = Modifier
            .fillMaxWidth()
            .padding(2.dp)
            .clickable{onSelected()},
        verticalAlignment = Alignment.CenterVertically // Align content
vertically
    ){
        RadioButton(
            selected = selected,
            onClick = {onSelected()}
        )
        Spacer(modifier = Modifier.width(8.dp))
        Text(text)
    }
}

@OptIn(ExperimentalComposeUiApi::class)
@Composable
@Preview(showBackground = true)
fun PreviewMyApp() {
    MyApp()
}

```



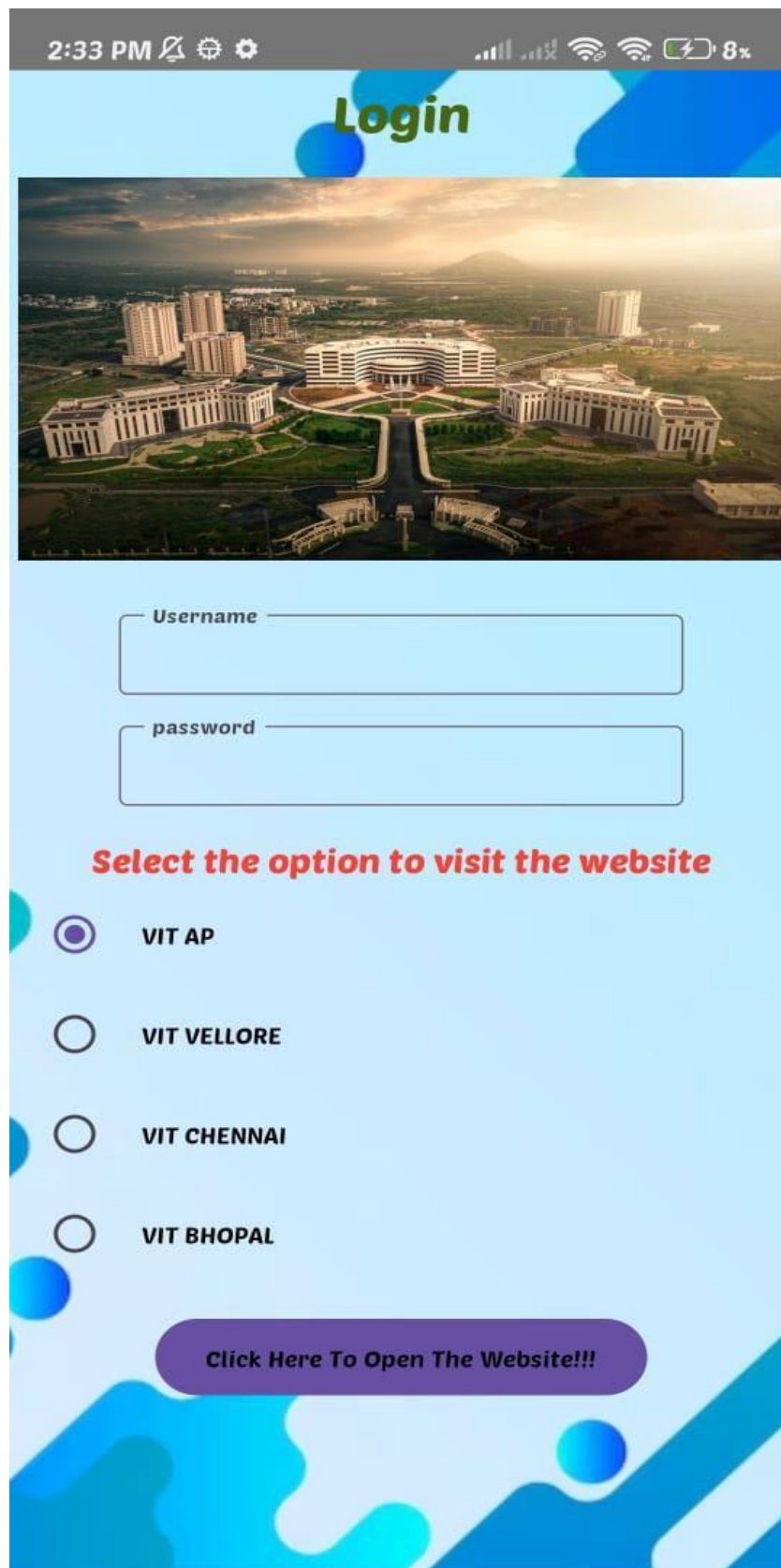
## Installing the app into device via USB



## After Installation



## Initial Screen of the application



The image shows the initial screen of a mobile application. At the top, there is a status bar with the time 2:33 PM, signal strength, Wi-Fi, and battery level at 8%. Below the status bar, the word "Login" is displayed in a green, stylized font. Underneath, there is a large image of a university campus. Below the image, there are two input fields: "Username" and "password". Below these fields, there is a red text prompt: "Select the option to visit the website". Under this prompt, there are four radio button options: "VIT AP", "VIT VELLORE", "VIT CHENNAI", and "VIT BHOPAL". At the bottom, there is a purple button with the text "Click Here To Open The Website!!!". The background of the screen is light blue with abstract blue shapes.

2:33 PM

**Login**

Username

password

**Select the option to visit the website**

☒ VIT AP

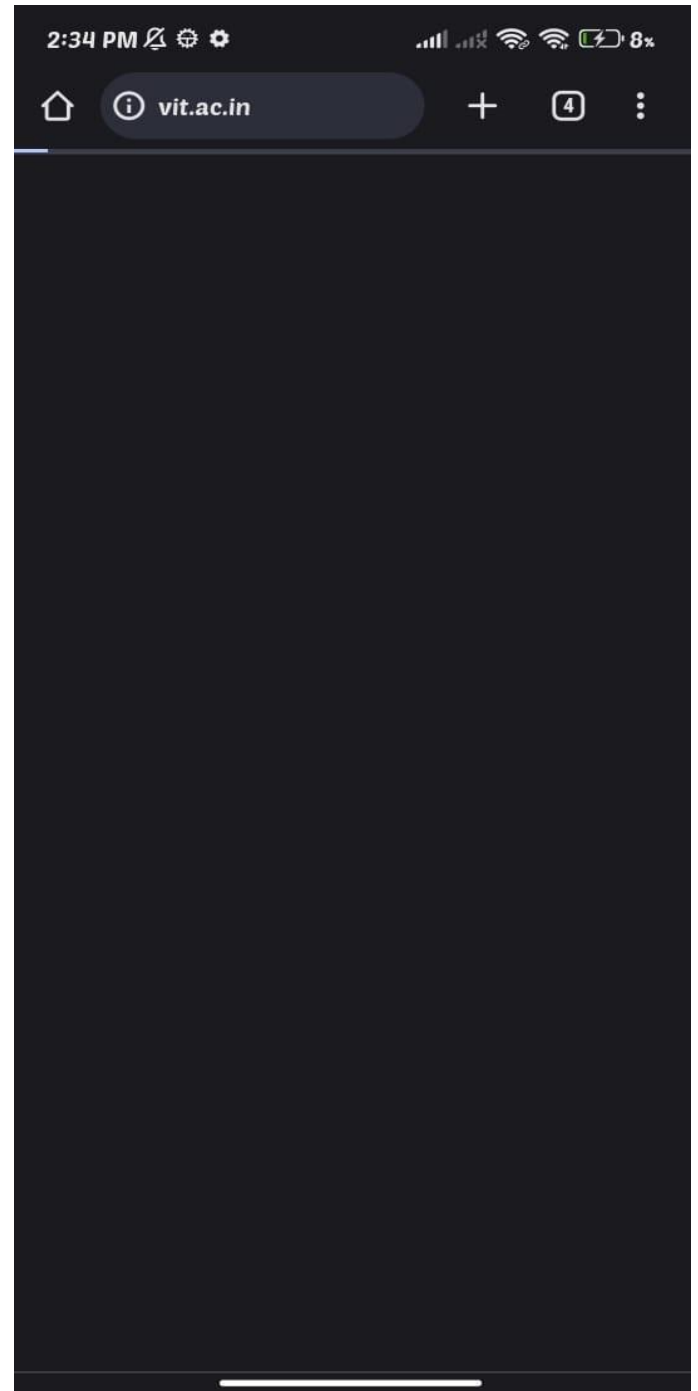
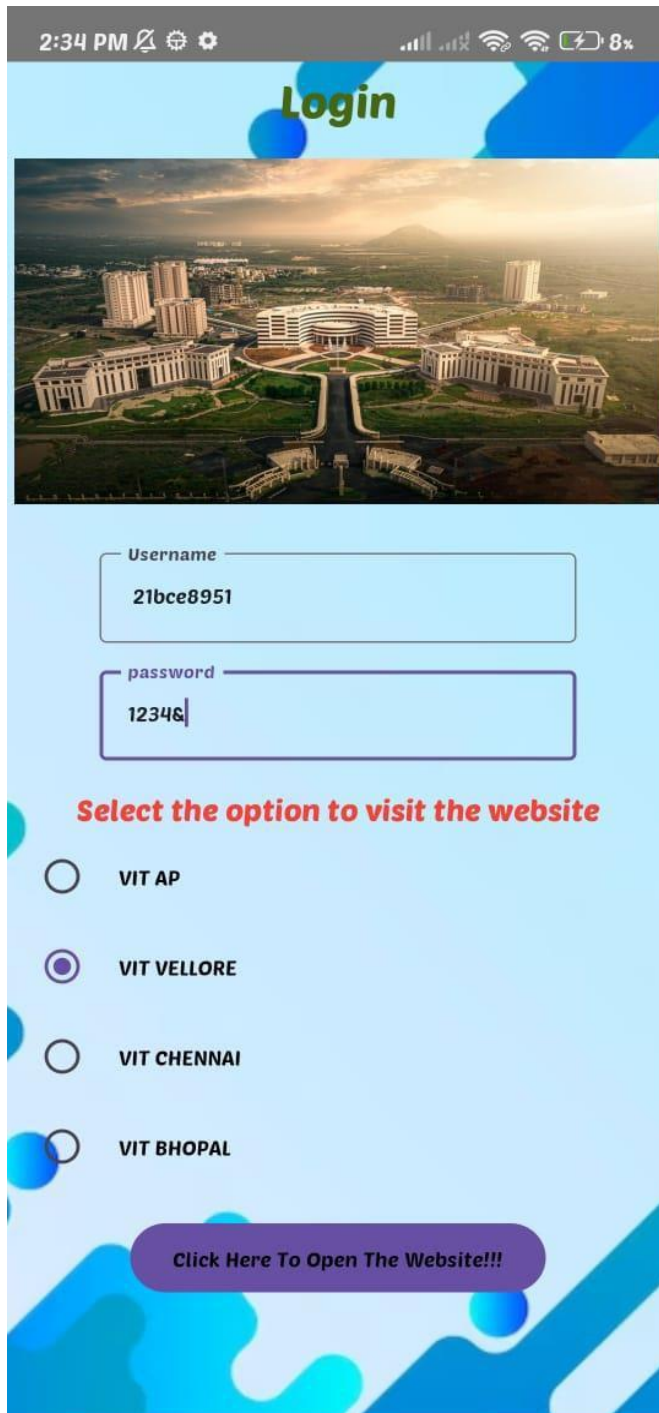
☐ VIT VELLORE

☐ VIT CHENNAI

☐ VIT BHOPAL

**Click Here To Open The Website!!!**

Redirecting to the respective web page after the credentials are provided



**THE END**

