A Material Design Study App

1. INTRODUCTION

1.10verview

A material design study app developed in Android Studio is a mobile application designed to provide a modern and user-friendly learning experience for students. The app utilizes Google's Material Design principles to create a visually appealing and intuitive interface that makes it easy for users to navigate and interact with educational content. The app provides interactive and engaging learning experiences, with features such as quizzes, flashcards, and games. This helps to make learning more fun and enjoyable, while also improving retention and comprehension.

The app can be customized to suit the needs and preferences of individual users. For example, users can set learning goals, track their progress, and receive personalized recommendations based on their performance. The app is designed to be accessible to users with different abilities and needs. It includes features such as text-to-speech, adjustable font sizes, and high contrast mode.

The app can be integrated with learning management systems (LMS) to provide a seamless learning experience. This enables users to access educational resources, track their progress, and communicate with teachers and peers through a single platform. The app can provide users with access to a community of learners and educators, allowing them to collaborate, share knowledge, and receive feedback.

1.2 Purpose

A Material Design study app can help users learn about various aspects of Material Design, including typography, color theory, layout guidelines. By using the app, users can improve their design skills and create better-looking and more initiative apps that follow the Material Design guidelines.

The app can serve as a reference guide for users to access information on material design principles and best practices while developing Android apps.

Material Design Study App could help users to understand the various components that make up Material Design, such as buttons, cards, and navigation drawers.

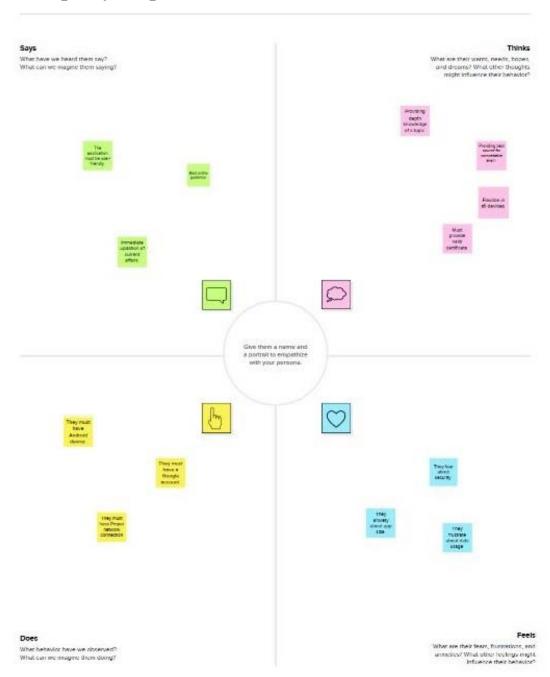
Users could learn how to use these components in their own designs to create consistent user experiences.

The app could provide a library of Material Design examples, allowing users to explore how different components are used in real-world designs.

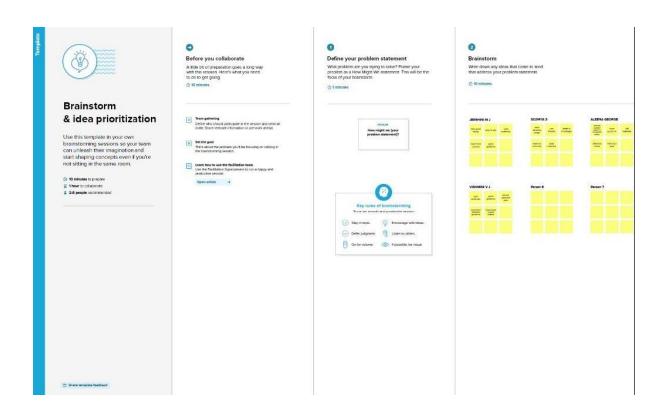
Overall, the purpose of a Material Design Study App would be to provide users with a comprehensive platform to learn, practice, and apply Material Design principles in their own designs.

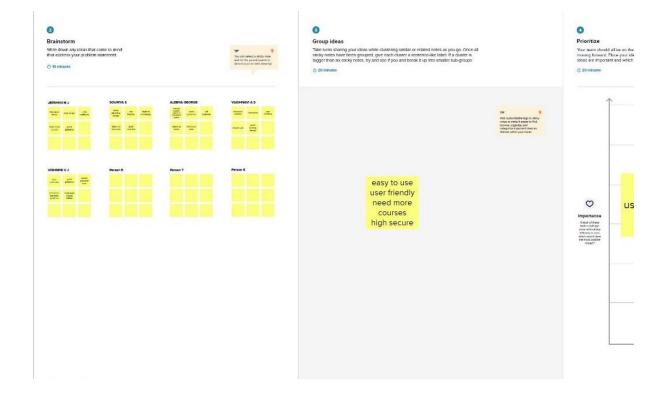
2. Problem Definition & Design Thinking

2.1 Empathy Map



2.2 Ideation and Brainstorming Map





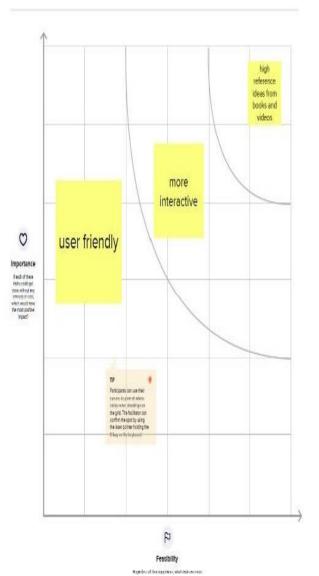
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or related notes as you go. Once all sentence-like label, if a cluster is eak h up into smaller sub-groups.

Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feesible.







After you collaborate

You can export the murar as an image or polf to share with members of your company who might find it helpful.

Quick add-one

Share the mural sance a view since to the mural with passencionent to keep them in the loop about the outcomes of the section.

Expert the munit Deport a copy of the munit as a PNG or PCP to ethich to emails, include it sibles, or save in your drive

Keep moving forward



Stretegy literprint Define the components of a new idea or strategy.

Open the template +



Customer experience journey map Understand customer needs, motivations, and obstacles for an experience:

Open the template -s



Strengths, weeknesses, opportunities & threets Mentify sireligits, weatherview, approximates, and threats (SWOT) to develop a plan.

Open the template +

Share template feedback

2. RESULT

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Register

Username allu			
Email soumyas902	25@gmail. con	n	
Password			

Have an account?

Log in



Login

Username
allu

Password

Successfully log in

Login

Register

Forget password?

Study Material



The Basics of Woodturning



Painting
An introduction to oil painting





Painting

An introduction to oil painting



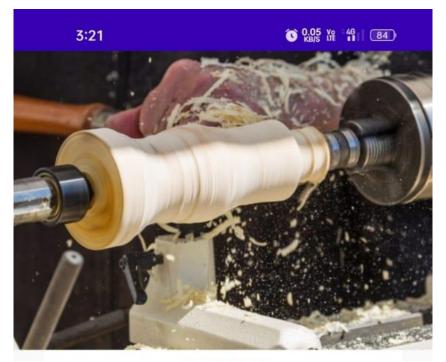
Architecture

City Phenomenon between Urban Structure and Composition



Design

Learning The Basics of Brand Identity



Arts & Craft

The Basics of Woodturning

What Is WoodTurning

Woodturning is a form of woodworking involving a lathe. With other kinds of woodworking, the wood is stationary and the tool moves to create cuts.

In woodturning, the lathe turns the wood on its axis at high revolutions per minute while relatively stationary special cutting tools on a tool rest do the work.

A wood lathe allows woodturners to create all kinds of objects, from bowls to stair railings to chess pieces to musical instruments.

History of Woodturning

The art on monuments in ancient Egypt offers the first recorded instances of spindle turning. These illustrations showed a strap a helper used to rotate the lathe while another worker cut the wood.



Painting

An introduction to oil painting

What is oil paint?

There are three main categories of oil paints: traditional oils, alkyd oils and water-mixable oils. These are all composed of pigment and binder. The binder encapsulates and protects the pigment, while it also acts as an adhesive by attaching neighbouring particles to each other.

What ranges do Winsor & Newton have available?

We currently have 4 ranges of oil paint to suit a variety of different practices.

Winsor & Artists Newton' Oil Colour range is a traditional oil paint, it provides the widest choice of colours with the highest pigment strength, ensuring the cleanest, brightest colours and best mixes.

The Winton Oil Colour range is also a traditional



Architecture

City Phenomenon between Urban Structure and Composition

Abstract

3:21

Cities are not just a sum of buildings, but especially a set of social relations that their inhabitants develop. Cities are characterized by a wide variety of social groups and lifestyles. An urban composition represents a form of the city in which it gets a formal order, so that the shape of any urban ensemble is not linked to a random phenomenon, but to an intervention mastered and understood as such. For the city, the urban composition represents what the architectural composition represents for a building. This concept regarding the composition is common both to the architecture and to the city. The main property of the composition is that it transforms a possibly dispersed ensemble into a whole, resolving the contradictions that arise when the requirements and conditions of the project are numerous. Spatial forms and urban compositions are built over time, longer than that of architectural composition. On the other hand, "design of the urban environment" is understood by us as a complex formation of public spaces of the city. located on the ground floor level of the city building and ensuring the vital activity of the urban community. This chapter will study the city phenomenon on a large scale.



Design

Learning The Basics of Brand Identity

What Is a Brand Identity?

ls it your logo? Your color palette? Your infographic style? It's all that—and more.

Branding pro Marty Neumeier defines a brand identity as "the outward expression of a brand, including its trademark, name, communications, and visual appearance." To us, a brand identity is the sum total of how your brand looks, feels, and speaks to people. (Sometimes that even includes how it sounds, tastes, feels, and even smells.)

That said, when most people talk about brand identity, they're referring to a brand's visual identity. For the purposes of this post, that's what we'll be focusing on.

Why Do You Need a Brand Identity?

A strong brand identity is not about making pretty packaging: it's about communicating your brand story effectively. Design is a powerful tool that can

4. ADVANTAGES & DISADVANTAGES

Advantages

- Modern and user-friendly design: By incorporating Material Design and OWL application framework, the study app can have a modern and user-friendly design, which can enhance the user experience and encourage users to engage with the app.
- Personalization and adaptability: The OWL application framework provides personalization and adaptability features, allowing users to tailor the app to their individual learning preferences and needs.
- Interactive and engaging learning experience: The OWL application framework also supports interactive and engaging learning experiences, such as gamification, collaboration, and multimedia content, which can increase user engagement and motivation.
- Open source and community support: The OWL application framework is open source and has a supportive community of developers and educators, which can provide valuable resources and support for app development.
- Scalability and flexibility: The OWL application framework is scalable and flexible, allowing for the addition of new features and functionality as the study app grows and evolves.

Disadvantages

- Complexity: Using both Material Design and the OWL application framework can add complexity to the development process, which may require more time and resources to develop and maintain the app.
- Learning curve: Developers and educators may need to invest time and effort to learn how to use the OWL application framework and properly incorporate it into the study app.
- Limited user base: While the OWL application framework has a supportive community of developers and educators, it may have a limited user base compared to more widely used educational technology systems.
- Compatibility issues: Integrating the study app with existing educational technology systems, such as learning management systems, may require compatibility testing and additional development work.
- Security concerns: As with any app, security concerns must be addressed, such as protecting user data and preventing unauthorized access.

5. APPLICATIONS

- eLearning: The study app can be used as an eLearning tool, providing interactive and engaging educational content to learners of all ages and backgrounds.
- Corporate training: The app can be used as a corporate training tool, providing personalized and adaptable learning experiences to employees in a variety of industries.
- Language learning: The study app can be used as a language learning tool, incorporating gamification, multimedia content, and social learning features to make language learning more engaging and effective.
- Test preparation: The app can be used as a test preparation tool, providing learners with practice questions, quizzes, and interactive learning resources to help them prepare for standardized tests and exams.
- Professional development: The study app can be used as a professional development tool, providing learners with access to courses, workshops, and other learning opportunities to help them advance their careers and gain new skills.
- Home schooling: The app can be used as a home schooling tool, providing parents and children with a comprehensive and interactive educational resource that can be adapted to meet individual learning needs.

6. CONCLUSION

In conclusion, developing a study app using both the OWL application framework and Material Design in Android Studio can offer various advantages, including a modern and user-friendly design, personalization and adaptability, interactive and engaging learning experiences, open source and community support, scalability and flexibility, and integration with learning management systems.

However, it is also important to consider potential disadvantages, such as complexity, learning curve, limited user base, compatibility issues, security concerns, and maintenance requirements.

Overall, a study app developed using both the OWL application framework and Material Design in Android Studio has diverse applications in eLearning, corporate training, language learning, test preparation, professional development, home schooling, and more. It can provide learners with access to interactive and engaging educational resources that can be tailored to meet their individual learning needs, making it a versatile tool for learning and professional development.

7. FUTURE SCOPE

- Social learning: The study app can leverage social learning features, such as peer-to-peer collaboration, discussion forums, and social media integration, to enable learners to connect and learn from each other.
- Mobile learning: Mobile learning is becoming increasingly popular, and the study app can be optimized for mobile devices, providing learners with anytime, anywhere access to educational content and resources.
- Adaptive learning: The study app can use data analytics and learner performance data to personalize learning experiences and adapt to individual learner needs and preferences.

Overall, the future scope of a study app developed using both the OWL application framework and Material Design in Android Studio is vast and varied, with numerous opportunities to enhance learning experiences and improve educational outcomes. By incorporating emerging technologies and trends, the study app can continue to evolve and adapt to the changing needs and preferences of learners in the future.

8. APPENDIX

A. Source code

AndroidManifest.xml

```
<?xml version="1.0" encoding="utf-8"?>
<manifest
xmlns:android="http://schemas.android.com/apk/res/andr
oid"
  xmlns:tools="http://schemas.android.com/tools">
  <application
    android:allowBackup="true"
android:dataExtractionRules="@xml/data extraction rul
es"
    android:fullBackupContent="@xml/backup_rules"
    android:icon="@mipmap/ic_launcher"
    android:label="@string/app_name"
    android:supportsRtl="true"
    android:theme="@style/Theme.OwlApplication"
    tools:targetApi="31">
    <activity
       android:name=".RegisterActivity"
       android:exported="false"
       android:label="@string/title_activity_register"
       android:theme="@style/Theme.OwlApplication"
/>
    <activity
       android:name=".MainActivity"
```

```
android:exported="false"
       android:label="MainActivity"
       android:theme="@style/Theme.OwlApplication"
/>
    <activity
       android:name=".MainActivity5"
       android:exported="false"
       android:label="@string/title_activity_main5"
       android:theme="@style/Theme.OwlApplication"
/>
    <activity
       android:name=".MainActivity4"
       android:exported="false"
       android:label="@string/title_activity_main4"
       android:theme="@style/Theme.OwlApplication"
/>
    <activity
       android:name=".MainActivity3"
       android:exported="false"
       android:label="@string/title_activity_main3"
       android:theme="@style/Theme.OwlApplication"
/>
    <activity
       android:name=".MainActivity2"
       android:exported="false"
       android:label="@string/title_activity_main2"
       android:theme="@style/Theme.OwlApplication"
/>
    <activity
       android:name=".LoginActivity"
       android:exported="true"
```

LoginActivity.kt

package com.example.owlapplication

import android.content.Context
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.*
import androidx.compose.material.*
import androidx.compose.runtime.*
import androidx.compose.ui.Alignment
import androidx.compose.ui.Modifier

```
import androidx.compose.ui.graphics.Color
import androidx.compose.ui.layout.ContentScale
import androidx.compose.ui.res.painterResource
import androidx.compose.ui.text.font.FontFamily
import androidx.compose.ui.text.font.FontWeight
import
androidx.compose.ui.text.input.PasswordVisualTransfor
mation
import androidx.compose.ui.tooling.preview.Preview
import androidx.compose.ui.unit.dp
import androidx.compose.ui.unit.sp
import androidx.core.content.ContextCompat
import
com.example.owlapplication.ui.theme.OwlApplicationT
heme
class LoginActivity : ComponentActivity() {
  private lateinit var databaseHelper:
UserDatabaseHelper
  override fun onCreate(savedInstanceState: Bundle?) {
    super.onCreate(savedInstanceState)
    databaseHelper = UserDatabaseHelper(this)
    setContent {
       LoginScreen(this, databaseHelper)
@Composable
fun LoginScreen(context: Context, databaseHelper:
UserDatabaseHelper) {
```

```
var username by remember { mutableStateOf("") }
  var password by remember { mutableStateOf("") }
  var error by remember { mutableStateOf("") }
  Column(
    modifier =
Modifier.fillMaxSize().background(Color.White),
    horizontalAlignment =
Alignment.CenterHorizontally,
    verticalArrangement = Arrangement.Center
  ) {
    Image(painterResource(id =
R.drawable.study_login), contentDescription = "")
    Text(
       fontSize = 36.sp,
       fontWeight = FontWeight.ExtraBold,
       fontFamily = FontFamily.Cursive,
       text = "Login"
    Spacer(modifier = Modifier.height(10.dp))
    TextField(
       value = username,
       onValueChange = { username = it },
       label = { Text("Username") },
       modifier = Modifier.padding(10.dp)
         .width(280.dp)
    )
```

```
TextField(
       value = password,
       onValueChange = { password = it },
       label = { Text("Password") },
       visualTransformation =
PasswordVisualTransformation(),
       modifier = Modifier.padding(10.dp)
          .width(280.dp)
    )
    if (error.isNotEmpty()) {
       Text(
         text = error,
         color = MaterialTheme.colors.error,
         modifier = Modifier.padding(vertical = 16.dp)
     }
    Button(
       onClick = {
         if (username.isNotEmpty() &&
password.isNotEmpty()) {
            val user =
databaseHelper.getUserByUsername(username)
            if (user != null && user.password ==
password) {
              error = "Successfully log in"
              context.startActivity(
                 Intent(
                   context,
                   MainActivity::class.java
```

```
//onLoginSuccess()
       else {
          error = "Invalid username or password"
       }
     } else {
       error = "Please fill all fields"
  modifier = Modifier.padding(top = 16.dp)
  Text(text = "Login")
Row {
  TextButton(onClick = {context.startActivity(
     Intent(
       context,
       RegisterActivity::class.java
  )}
  { Text(text = "Register") }
  TextButton(onClick = {
  })
     Spacer(modifier = Modifier.width(60.dp))
     Text(text = "Forget password?")
```

```
}
}

private fun startMainPage(context: Context) {
  val intent = Intent(context, MainActivity::class.java)
  ContextCompat.startActivity(context, intent, null)
}
```

MainActivity.kt

package com.example.owlapplication

import android.content.Context 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.clickable import androidx.compose.foundation.layout.* import androidx.compose.foundation.rememberScrollState import androidx.compose.foundation.verticalScroll import androidx.compose.material.Card import androidx.compose.material.Text import androidx.compose.runtime.Composable import androidx.compose.ui.Alignment import androidx.compose.ui.Modifier import androidx.compose.ui.draw.scale import androidx.compose.ui.graphics.Color

```
import androidx.compose.ui.res.painterResource
import androidx.compose.ui.res.stringResource
import androidx.compose.ui.text.font.FontWeight
import androidx.compose.ui.text.style.TextAlign
import androidx.compose.ui.unit.dp
import androidx.compose.ui.unit.sp
class MainActivity : ComponentActivity() {
  override fun onCreate(savedInstanceState: Bundle?) {
    super.onCreate(savedInstanceState)
    setContent {
       StudyApp(this)
@Composable
fun StudyApp(context: Context) {
  Column(
    modifier = Modifier
       .padding(20.dp)
       .verticalScroll(rememberScrollState())
  ) {
    Text(text = "Study Material",
       fontSize = 36.sp,
       fontWeight = FontWeight.Bold,
       color = Color(0xFFFFA500),
```

```
modifier =
Modifier.align(Alignment.CenterHorizontally))
     Spacer(modifier = Modifier.height(20.dp))
//
      01
     Card(
       modifier = Modifier
          .fillMaxWidth()
          .height(250.dp)
          .clickable {
            context.startActivity(
              Intent(context,
MainActivity2::class.java)
       elevation = 8.dp
       Column(
         horizontalAlignment =
Alignment.CenterHorizontally
       ) {
          Image(
            painterResource(id = R.drawable.img_1),
contentDescription = "",
            modifier = Modifier
               .height(150.dp)
               .scale(scaleX = 1.2F, scaleY = 1F)
```

```
Text(text = stringResource(id =
R.string.course1),color = Color(0xFFFFA500),
            fontSize = 16.sp)
          Text(
            text = stringResource(id = R.string.topic1),
            fontWeight = FontWeight.Bold,
            fontSize = 20.sp,
            textAlign = TextAlign.Center,
     Spacer(modifier = Modifier.height(20.dp))
//
      02
     Card(
       modifier = Modifier
          .fillMaxWidth()
          .height(250.dp)
          .clickable {
            context.startActivity(
               Intent(context,
MainActivity3::class.java)
       elevation = 8.dp
```

```
Column(
       horizontalAlignment =
Alignment.CenterHorizontally
     ) {
       Image(
         painterResource(id = R.drawable.img_2),
contentDescription = "",
         modifier = Modifier
            .height(150.dp)
            .scale(scaleX = 1.4F, scaleY = 1F)
       Text(text = stringResource(id =
R.string.course2),color = Color(0xFFFFA500),
         fontSize = 16.sp)
       Text(
         text = stringResource(id = R.string.topic2),
         fontWeight = FontWeight.Bold,
         fontSize = 20.sp,
         textAlign = TextAlign.Center,
    Spacer(modifier = Modifier.height(20.dp))
//
      03
    Card(
       modifier = Modifier
          .fillMaxWidth()
          .height(250.dp)
```

```
.clickable {
            context.startActivity(
              Intent(context,
MainActivity4::class.java)
       elevation = 8.dp
       Column(
         horizontalAlignment =
Alignment.CenterHorizontally
       ) {
         Image(
            painterResource(id = R.drawable.img_3),
contentDescription = "",
            modifier = Modifier
               .height(150.dp)
               .scale(scaleX = 1.2F, scaleY = 1F)
         Text(text = stringResource(id =
R.string.course3),color = Color(0xFFFA500),
            fontSize = 16.sp)
         Text(
            text = stringResource(id = R.string.topic3),
            fontWeight = FontWeight.Bold,
            fontSize = 20.sp,
            textAlign = TextAlign.Center,
```

```
Spacer(modifier = Modifier.height(20.dp))
//
      04
     Card(
       modifier = Modifier
          .fillMaxWidth()
          .height(250.dp)
          .clickable {
            context.startActivity(
              Intent(context,
MainActivity5::class.java)
       elevation = 8.dp
       Column(
         horizontalAlignment =
Alignment.CenterHorizontally
       ) {
         Image(
            painterResource(id = R.drawable.img_4),
contentDescription = "",
            modifier = Modifier
               .height(150.dp)
```

```
.scale(scaleX = 1.2F, scaleY = 1F)
)
Text(text = stringResource(id =
R.string.course4),color = Color(0xFFFA500),
    fontSize = 16.sp)

Text(
    text = stringResource(id = R.string.topic4),
    fontWeight = FontWeight.Bold,
    fontSize = 20.sp,
    textAlign = TextAlign.Center,
)
}
}
```

MainActivity2.kt

package com.example.owlapplication

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.*

```
import
androidx.compose.foundation.rememberScrollState
import androidx.compose.foundation.verticalScroll
import androidx.compose.material.Text
import androidx.compose.runtime.Composable
import androidx.compose.ui.Alignment
import androidx.compose.ui.Modifier
import androidx.compose.ui.draw.scale
import androidx.compose.ui.graphics.Color
import androidx.compose.ui.res.painterResource
import androidx.compose.ui.res.stringResource
import androidx.compose.ui.text.font.FontWeight
import androidx.compose.ui.text.style.TextAlign
import androidx.compose.ui.unit.dp
import androidx.compose.ui.unit.sp
import
com.example.owlapplication.ui.theme.OwlApplicationT
heme
class MainActivity2 : ComponentActivity() {
  override fun onCreate(savedInstanceState: Bundle?) {
    super.onCreate(savedInstanceState)
    setContent {
       Greeting()
@Composable
fun Greeting() {
  Column(
```

```
modifier = Modifier.padding(start = 26.dp, end =
26.dp, bottom = 26.dp)
       .verticalScroll(rememberScrollState())
       .background(Color.White),
    verticalArrangement = Arrangement.Top
  ) {
    Image(
       painterResource(id = R.drawable.img_1),
       contentDescription = "",
       modifier =
Modifier.align(Alignment.CenterHorizontally)
         .scale(scaleX = 1.5F, scaleY = 1.5F)
    )
    Spacer(modifier = Modifier.height(60.dp))
    Text(
       text = stringResource(id = R.string.course1),
       color = Color(0xFFFFA500),
       fontSize = 16.sp,
       modifier =
Modifier.align(Alignment.CenterHorizontally)
    Spacer(modifier = Modifier.height(20.dp))
    Text(
       text = stringResource(id = R.string.topic1),
       fontWeight = FontWeight.Bold,
       fontSize = 26.sp,
```

```
modifier =
Modifier.align(Alignment.CenterHorizontally)
     )
    Spacer(modifier = Modifier.height(20.dp))
    Text(
       text = stringResource(id =
R.string.subheading1_1),
       modifier = Modifier.align(Alignment.Start),
       fontSize = 20.sp
    )
    Spacer(modifier = Modifier.height(20.dp))
    Text(
       text = stringResource(id = R.string.text1_1),
       modifier = Modifier.align(Alignment.Start),
       textAlign = TextAlign.Justify,
       fontSize = 16.sp
    )
    Spacer(modifier = Modifier.height(20.dp))
    Text(
       text = stringResource(id =
R.string.subheading1_2),
       modifier = Modifier.align(Alignment.Start),
       fontSize = 20.sp
    Spacer(modifier = Modifier.height(20.dp))
```

```
Text(
    text = stringResource(id = R.string.text1_2),
    modifier = Modifier.align(Alignment.Start),
    textAlign = TextAlign.Justify,
    fontSize = 16.sp
)
```

MainActivity3.kt

package com.example.owlapplication

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.*
import
androidx.compose.foundation.rememberScrollState
import androidx.compose.foundation.verticalScroll
import androidx.compose.material.Text
import androidx.compose.runtime.Composable
import androidx.compose.ui.Alignment

```
import androidx.compose.ui.Modifier
import androidx.compose.ui.draw.scale
import androidx.compose.ui.graphics.Color
import androidx.compose.ui.res.painterResource
import androidx.compose.ui.res.stringResource
import androidx.compose.ui.text.font.FontWeight
import androidx.compose.ui.text.style.TextAlign
import androidx.compose.ui.unit.dp
import androidx.compose.ui.unit.sp
class MainActivity3 : ComponentActivity() {
  override fun onCreate(savedInstanceState: Bundle?) {
    super.onCreate(savedInstanceState)
    setContent {
       Greeting1()
@Composable
fun Greeting1() {
  Column(
    modifier = Modifier.padding(start = 26.dp, end =
26.dp, bottom = 26.dp)
       .verticalScroll(rememberScrollState())
       .background(Color.White),
    verticalArrangement = Arrangement.Top
```

painterResource(id = R.drawable.img_2),

contentDescription = "",

) {

Image(

```
modifier =
Modifier.align(Alignment.CenterHorizontally)
         .scale(scaleX = 1.2F, scaleY = 1F)
    )
    Spacer(modifier = Modifier.height(20.dp))
    Text(
       text = stringResource(id = R.string.course2),
       color = Color(0xFFFFA500),
       fontSize = 16.sp,
       modifier =
Modifier.align(Alignment.CenterHorizontally)
    Spacer(modifier = Modifier.height(20.dp))
    Text(
       text = stringResource(id = R.string.topic2),
       fontWeight = FontWeight.Bold,
       fontSize = 26.sp,
       modifier =
Modifier.align(Alignment.CenterHorizontally)
    Spacer(modifier = Modifier.height(20.dp))
    Text(
       text = stringResource(id =
R.string.subheading2_1),
       modifier = Modifier.align(Alignment.Start),
       fontSize = 20.sp
```

```
)
    Spacer(modifier = Modifier.height(20.dp))
    Text(
       text = stringResource(id = R.string.text2_1),
       modifier = Modifier.align(Alignment.Start),
       textAlign = TextAlign.Justify,
       fontSize = 16.sp
    )
     Spacer(modifier = Modifier.height(20.dp))
    Text(
       text = stringResource(id =
R.string.subheading2_2),
       modifier = Modifier.align(Alignment.Start),
       fontSize = 20.sp
    Spacer(modifier = Modifier.height(20.dp))
    Text(
       text = stringResource(id = R.string.text2_2),
       modifier = Modifier.align(Alignment.Start),
       textAlign = TextAlign.Justify,
       fontSize = 16.sp
```

}

MainActivity4.kt

package com.example.owlapplication

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.* import androidx.compose.foundation.rememberScrollState import androidx.compose.foundation.verticalScroll import androidx.compose.material.MaterialTheme import androidx.compose.material.Surface import androidx.compose.material.Text import androidx.compose.runtime.Composable import androidx.compose.ui.Alignment import androidx.compose.ui.Modifier import androidx.compose.ui.draw.scale import androidx.compose.ui.graphics.Color import androidx.compose.ui.res.painterResource import androidx.compose.ui.res.stringResource import androidx.compose.ui.text.font.FontWeight import androidx.compose.ui.text.style.TextAlign import androidx.compose.ui.tooling.preview.Preview import androidx.compose.ui.unit.dp import androidx.compose.ui.unit.sp

```
import
com.example.owlapplication.ui.theme.OwlApplicationT
heme
class MainActivity4 : ComponentActivity() {
  override fun onCreate(savedInstanceState: Bundle?) {
    super.onCreate(savedInstanceState)
    setContent {
       Greeting2()
@Composable
fun Greeting2() {
  Column(
    modifier = Modifier.padding(start = 26.dp, end =
26.dp, bottom = 26.dp)
       .verticalScroll(rememberScrollState())
       .background(Color.White),
    verticalArrangement = Arrangement.Top
  ) {
    Image(
       painterResource(id = R.drawable.img_3),
       contentDescription = "",
       modifier =
Modifier.align(Alignment.CenterHorizontally)
         .scale(scaleX = 1.5F, scaleY = 2F)
    )
    Spacer(modifier = Modifier.height(60.dp))
```

```
Text(
       text = stringResource(id = R.string.course3),
       color = Color(0xFFFFA500),
       fontSize = 16.sp,
       modifier =
Modifier.align(Alignment.CenterHorizontally)
    Spacer(modifier = Modifier.height(20.dp))
    Text(
       text = stringResource(id = R.string.topic3),
       fontWeight = FontWeight.Bold,
       fontSize = 26.sp,
       modifier =
Modifier.align(Alignment.CenterHorizontally)
     Spacer(modifier = Modifier.height(20.dp))
    Text(
       text = stringResource(id =
R.string.subheading3_1),
       modifier = Modifier.align(Alignment.Start),
       fontSize = 20.sp
    Spacer(modifier = Modifier.height(20.dp))
    Text(
       text = stringResource(id = R.string.text3_1),
```

```
modifier = Modifier.align(Alignment.Start),
       textAlign = TextAlign.Justify,
       fontSize = 16.sp
    )
    Spacer(modifier = Modifier.height(20.dp))
    Text(
       text = stringResource(id =
R.string.subheading3_2),
       modifier = Modifier.align(Alignment.Start),
       fontSize = 20.sp
    )
    Spacer(modifier = Modifier.height(20.dp))
    Text(
       text = stringResource(id = R.string.text3_2),
       modifier = Modifier.align(Alignment.Start),
       textAlign = TextAlign.Justify,
       fontSize = 16.sp
```

MainActivity.5.kt

package com.example.owlapplication

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.* import androidx.compose.foundation.rememberScrollState import androidx.compose.foundation.verticalScroll import androidx.compose.material.MaterialTheme import androidx.compose.material.Surface import androidx.compose.material.Text import androidx.compose.runtime.Composable import androidx.compose.ui.Alignment import androidx.compose.ui.Modifier import androidx.compose.ui.draw.scale import androidx.compose.ui.graphics.Color import androidx.compose.ui.res.painterResource import androidx.compose.ui.res.stringResource import androidx.compose.ui.text.font.FontWeight import androidx.compose.ui.text.style.TextAlign import androidx.compose.ui.tooling.preview.Preview import androidx.compose.ui.unit.dp import androidx.compose.ui.unit.sp import com.example.owlapplication.ui.theme.OwlApplicationT heme

class MainActivity5 : ComponentActivity() {

```
override fun onCreate(savedInstanceState: Bundle?) {
    super.onCreate(savedInstanceState)
    setContent {
       Greeting3()
@Composable
fun Greeting3() {
  Column(
    modifier = Modifier.padding(start = 26.dp, end =
26.dp, bottom = 26.dp)
       .verticalScroll(rememberScrollState())
       .background(Color.White),
    verticalArrangement = Arrangement.Top
  ) {
    Image(
       painterResource(id = R.drawable.img_4),
       contentDescription = "",
       modifier =
Modifier.align(Alignment.CenterHorizontally)
         .scale(scaleX = 1.5F, scaleY = 1.5F)
    )
    Spacer(modifier = Modifier.height(60.dp))
    Text(
       text = stringResource(id = R.string.course4),
       color = Color(0xFFFFA500),
       fontSize = 16.sp,
```

```
modifier =
Modifier.align(Alignment.CenterHorizontally)
    Spacer(modifier = Modifier.height(20.dp))
    Text(
       text = stringResource(id = R.string.topic4),
       fontWeight = FontWeight.Bold,
       fontSize = 26.sp,
       modifier =
Modifier.align(Alignment.CenterHorizontally)
    Spacer(modifier = Modifier.height(20.dp))
    Text(
       text = stringResource(id =
R.string.subheading4_1),
       modifier = Modifier.align(Alignment.Start),
       fontSize = 20.sp
    Spacer(modifier = Modifier.height(20.dp))
    Text(
       text = stringResource(id = R.string.text4_1),
       modifier = Modifier.align(Alignment.Start),
       textAlign = TextAlign.Justify,
       fontSize = 16.sp
```

```
Spacer(modifier = Modifier.height(20.dp))
    Text(
       text = stringResource(id =
R.string.subheading4_2),
       modifier = Modifier.align(Alignment.Start),
       fontSize = 20.sp
    )
    Spacer(modifier = Modifier.height(20.dp))
    Text(
       text = stringResource(id = R.string.text4_2),
       modifier = Modifier.align(Alignment.Start),
       textAlign = TextAlign.Justify,
       fontSize = 16.sp
```

RegisterActivity.kt

package com.example.owlapplication

import android.content.Context 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.*
import androidx.compose.material.*
import androidx.compose.runtime.*
import androidx.compose.ui.Alignment
import androidx.compose.ui.Modifier
import androidx.compose.ui.graphics.Color
import androidx.compose.ui.layout.ContentScale
import androidx.compose.ui.res.painterResource
import androidx.compose.ui.text.font.FontFamily
import androidx.compose.ui.text.font.FontWeight
import
and roid x. compose. ui. text. input. Password Visual Transfor \\
mation
import androidx.compose.ui.tooling.preview.Preview
import androidx.compose.ui.unit.dp
import androidx.compose.ui.unit.sp
import androidx.core.content.ContextCompat
import
com.example.owlapplication.ui.theme.OwlApplicationT
heme
class RegisterActivity : ComponentActivity() {
  private lateinit var databaseHelper:
UserDatabaseHelper
  override fun onCreate(savedInstanceState: Bundle?) {
    super.onCreate(savedInstanceState)
    databaseHelper = UserDatabaseHelper(this)
    setContent {
```

```
RegistrationScreen(this, databaseHelper)
@Composable
fun RegistrationScreen(context: Context,
databaseHelper: UserDatabaseHelper) {
  var username by remember { mutableStateOf("") }
  var password by remember { mutableStateOf("") }
  var email by remember { mutableStateOf("") }
  var error by remember { mutableStateOf("") }
  Column(
    modifier =
Modifier.fillMaxSize().background(Color.White),
    horizontalAlignment =
Alignment.CenterHorizontally,
    verticalArrangement = Arrangement.Center
  ) {
    Image(painterResource(id =
R.drawable.study_signup), contentDescription = "")
    Text(
       fontSize = 36.sp,
       fontWeight = FontWeight.ExtraBold,
       fontFamily = FontFamily.Cursive,
       text = "Register"
```

```
Spacer(modifier = Modifier.height(10.dp))
    TextField(
       value = username,
       onValueChange = { username = it },
       label = { Text("Username") },
       modifier = Modifier
         .padding(10.dp)
         .width(280.dp)
    )
    TextField(
       value = email,
       onValueChange = { email = it },
       label = { Text("Email") },
       modifier = Modifier
         .padding(10.dp)
         .width(280.dp)
    )
    TextField(
       value = password,
       onValueChange = { password = it },
       label = { Text("Password") },
       visualTransformation =
PasswordVisualTransformation(),
       modifier = Modifier
         .padding(10.dp)
         .width(280.dp)
```

```
if (error.isNotEmpty()) {
       Text(
         text = error,
         color = MaterialTheme.colors.error,
         modifier = Modifier.padding(vertical = 16.dp)
     }
    Button(
       onClick = {
         if (username.isNotEmpty() &&
password.isNotEmpty() && email.isNotEmpty()) {
            val user = User(
              id = null,
              firstName = username,
              lastName = null,
              email = email,
              password = password
            databaseHelper.insertUser(user)
            error = "User registered successfully"
            // Start LoginActivity using the current
context
            context.startActivity(
              Intent(
                 context,
                 LoginActivity::class.java
```

```
} else {
            error = "Please fill all fields"
       },
       modifier = Modifier.padding(top = 16.dp)
       Text(text = "Register")
     Spacer(modifier = Modifier.width(10.dp))
     Spacer(modifier = Modifier.height(10.dp))
    Row() {
       Text(
         modifier = Modifier.padding(top = 14.dp),
text = "Have an account?"
       TextButton(onClick = {
          context.startActivity(
            Intent(
               context,
               LoginActivity::class.java
       })
          Spacer(modifier = Modifier.width(10.dp))
         Text(text = "Log in")
     }
```

```
}
private fun startLoginActivity(context: Context) {
  val intent = Intent(context, LoginActivity::class.java)
  ContextCompat.startActivity(context, intent, null)
}
                      User.kt
package com.example.owlapplication
import androidx.room.ColumnInfo
import androidx.room.Entity
import androidx.room.PrimaryKey
@Entity(tableName = "user_table")
data class User(
  @PrimaryKey(autoGenerate = true) val id: Int?,
  @ColumnInfo(name = "first_name") val firstName:
String?,
  @ColumnInfo(name = "last_name") val lastName:
String?,
  @ColumnInfo(name = "email") val email: String?,
  @ColumnInfo(name = "password") val password:
```

app/src/main/java/com/example/owlapplication/UserDa o.kt

String?,

)

```
package com.example.owlapplication
import androidx.room.*
@Dao
interface UserDao {
  @Query("SELECT * FROM user_table WHERE
email = :email")
  suspend fun getUserByEmail(email: String): User?
  @Insert(onConflict =
OnConflictStrategy.REPLACE)
  suspend fun insertUser(user: User)
  @Update
  suspend fun updateUser(user: User)
  @Delete
  suspend fun deleteUser(user: User)
}
app/src/main/java/com/example/owlapplication/UserDat
abase.kt
package com.example.owlapplication
import android.content.Context
import androidx.room.Database
import androidx.room.Room
```

```
import androidx.room.RoomDatabase
```

```
@Database(entities = [User::class], version = 1)
abstract class UserDatabase : RoomDatabase() {
  abstract fun userDao(): UserDao
  companion object {
     @Volatile
    private var instance: UserDatabase? = null
    fun getDatabase(context: Context): UserDatabase {
       return instance ?: synchronized(this) {
         val newInstance = Room.databaseBuilder(
            context.applicationContext,
            UserDatabase::class.java,
            "user_database"
         ).build()
         instance = newInstance
         newInstance
```

UserDatabaseHelper.kt

package com.example.owlapplication import android.annotation.SuppressLint

```
import android.content.ContentValues
     import android.content.Context
     import android.database.Cursor
     import android.database.sqlite.SQLiteDatabase
     import android.database.sqlite.SQLiteOpenHelper
     class UserDatabaseHelper(context: Context):
       SQLiteOpenHelper(context, DATABASE_NAME,
     null, DATABASE_VERSION) {
       companion object {
         private const val DATABASE_VERSION = 1
         private const val DATABASE_NAME =
     "UserDatabase.db"
         private const val TABLE_NAME = "user_table"
         private const val COLUMN_ID = "id"
         private const val COLUMN_FIRST_NAME =
     "first name"
         private const val COLUMN_LAST_NAME =
     "last name"
         private const val COLUMN_EMAIL = "email"
         private const val COLUMN_PASSWORD =
     "password"
       }
       override fun onCreate(db: SQLiteDatabase?) {
         val createTable = "CREATE TABLE
     $TABLE NAME ("+
```

```
"$COLUMN ID INTEGER PRIMARY KEY
AUTOINCREMENT, "+
        "$COLUMN_FIRST_NAME TEXT, " +
        "$COLUMN_LAST_NAME TEXT, " +
        "$COLUMN_EMAIL TEXT, " +
        "$COLUMN_PASSWORD TEXT" +
        ")"
    db?.execSQL(createTable)
  }
  override fun on Upgrade (db: SQLiteDatabase?,
oldVersion: Int, newVersion: Int) {
    db?.execSQL("DROP TABLE IF EXISTS
$TABLE NAME")
    onCreate(db)
  }
  fun insertUser(user: User) {
    val db = writableDatabase
    val values = ContentValues()
    values.put(COLUMN_FIRST_NAME,
user.firstName)
    values.put(COLUMN_LAST_NAME,
user.lastName)
    values.put(COLUMN_EMAIL, user.email)
    values.put(COLUMN_PASSWORD,
user.password)
    db.insert(TABLE_NAME, null, values)
    db.close()
```

```
@SuppressLint("Range")
  fun getUserByUsername(username: String): User? {
    val db = readableDatabase
    val cursor: Cursor = db.rawQuery("SELECT *
FROM $TABLE_NAME WHERE
$COLUMN_FIRST_NAME = ?", arrayOf(username))
    var user: User? = null
    if (cursor.moveToFirst()) {
      user = User(
        id =
cursor.getInt(cursor.getColumnIndex(COLUMN_ID)),
        firstName =
cursor.getString(cursor.getColumnIndex(COLUMN_FI
RST_NAME)),
        lastName =
cursor.getString(cursor.getColumnIndex(COLUMN_L
AST_NAME)),
        email =
cursor.getString(cursor.getColumnIndex(COLUMN_E
MAIL)),
        password =
cursor.getString(cursor.getColumnIndex(COLUMN_P
ASSWORD)),
    cursor.close()
    db.close()
    return user
  @SuppressLint("Range")
```

```
fun getUserById(id: Int): User? {
    val db = readableDatabase
    val cursor: Cursor = db.rawQuery("SELECT *
FROM $TABLE_NAME WHERE $COLUMN_ID =
?", arrayOf(id.toString()))
    var user: User? = null
    if (cursor.moveToFirst()) {
      user = User(
         id =
cursor.getInt(cursor.getColumnIndex(COLUMN_ID)),
        firstName =
cursor.getString(cursor.getColumnIndex(COLUMN_FI
RST_NAME)),
        lastName =
cursor.getString(cursor.getColumnIndex(COLUMN_L
AST_NAME)),
         email =
cursor.getString(cursor.getColumnIndex(COLUMN_E
MAIL)),
        password =
cursor.getString(cursor.getColumnIndex(COLUMN_P
ASSWORD)),
    cursor.close()
    db.close()
    return user
  }
  @SuppressLint("Range")
  fun getAllUsers(): List<User> {
```

```
val users = mutableListOf<User>()
    val db = readableDatabase
    val cursor: Cursor = db.rawQuery("SELECT *
FROM $TABLE_NAME", null)
    if (cursor.moveToFirst()) {
      do {
         val user = User(
           id =
cursor.getInt(cursor.getColumnIndex(COLUMN_ID)),
           firstName =
cursor.getString(cursor.getColumnIndex(COLUMN_FI
RST_NAME)),
           lastName =
cursor.getString(cursor.getColumnIndex(COLUMN_L
AST_NAME)),
           email =
cursor.getString(cursor.getColumnIndex(COLUMN_E
MAIL)),
           password =
cursor.getString(cursor.getColumnIndex(COLUMN_P
ASSWORD)),
         users.add(user)
       } while (cursor.moveToNext())
    cursor.close()
    db.close()
    return users
```

Color.kt

```
package com.example.owlapplication.ui.theme import androidx.compose.ui.graphics.Color val Purple200 = Color(0xFFBB86FC) val Purple500 = Color(0xFF6200EE) val Purple700 = Color(0xFF3700B3) val Teal200 = Color(0xFF03DAC5)
```

Shape.kt

```
package com.example.owlapplication.ui.theme
import
androidx.compose.foundation.shape.RoundedCornerShape
import androidx.compose.material.Shapes
import androidx.compose.ui.unit.dp

val Shapes = Shapes(
    small = RoundedCornerShape(4.dp),
    medium = RoundedCornerShape(4.dp),
    large = RoundedCornerShape(0.dp)
)
```

Theme.kt

package com.example.owlapplication.ui.theme

```
import
androidx.compose.foundation.isSystemInDarkTheme
import androidx.compose.material.MaterialTheme
import androidx.compose.material.darkColors
import androidx.compose.material.lightColors
import androidx.compose.runtime.Composable
private val DarkColorPalette = darkColors(
  primary = Purple200,
  primary Variant = Purple 700,
  secondary = Teal 200
)
private val LightColorPalette = lightColors(
  primary = Purple500,
  primary Variant = Purple 700,
  secondary = Teal200
  /* Other default colors to override
  background = Color. White,
  surface = Color. White,
  onPrimary = Color. White,
  onSecondary = Color.Black,
  onBackground = Color.Black,
  onSurface = Color.Black,
)
@Composable
```

```
fun OwlApplicationTheme(
   darkTheme: Boolean = isSystemInDarkTheme(),
   content: @Composable () -> Unit
) {
   val colors = if (darkTheme) {
      DarkColorPalette
   } else {
      LightColorPalette
   }

   MaterialTheme(
      colors = colors,
      typography = Typography,
      shapes = Shapes,
      content = content
   )
}
```

Type.kt

package com.example.owlapplication.ui.theme

import androidx.compose.material.Typography import androidx.compose.ui.text.TextStyle import androidx.compose.ui.text.font.FontFamily import androidx.compose.ui.text.font.FontWeight import androidx.compose.ui.unit.sp

```
// Set of Material typography styles to start with
val Typography = Typography(
   body1 = TextStyle(
```

```
fontFamily = FontFamily.Default,
  fontWeight = FontWeight.Normal,
  fontSize = 16.sp
)
/* Other default text styles to override
button = TextStyle(
  fontFamily = FontFamily.Default,
  fontWeight = FontWeight.W500,
  fontSize = 14.sp
),
caption = TextStyle(
  fontFamily = FontFamily.Default,
  fontWeight = FontWeight.Normal,
  fontSize = 12.sp
)
*/
```