Owl-M: A Material Design Study App

**Introduction**

1.1. Overview

Project Description

Owl-M: A Material Design Study Appcan be used as a study app that provides the study materials for many educational areas. Android Jetpack Compose is used to build a UI for a Owl-M: a material design study app.
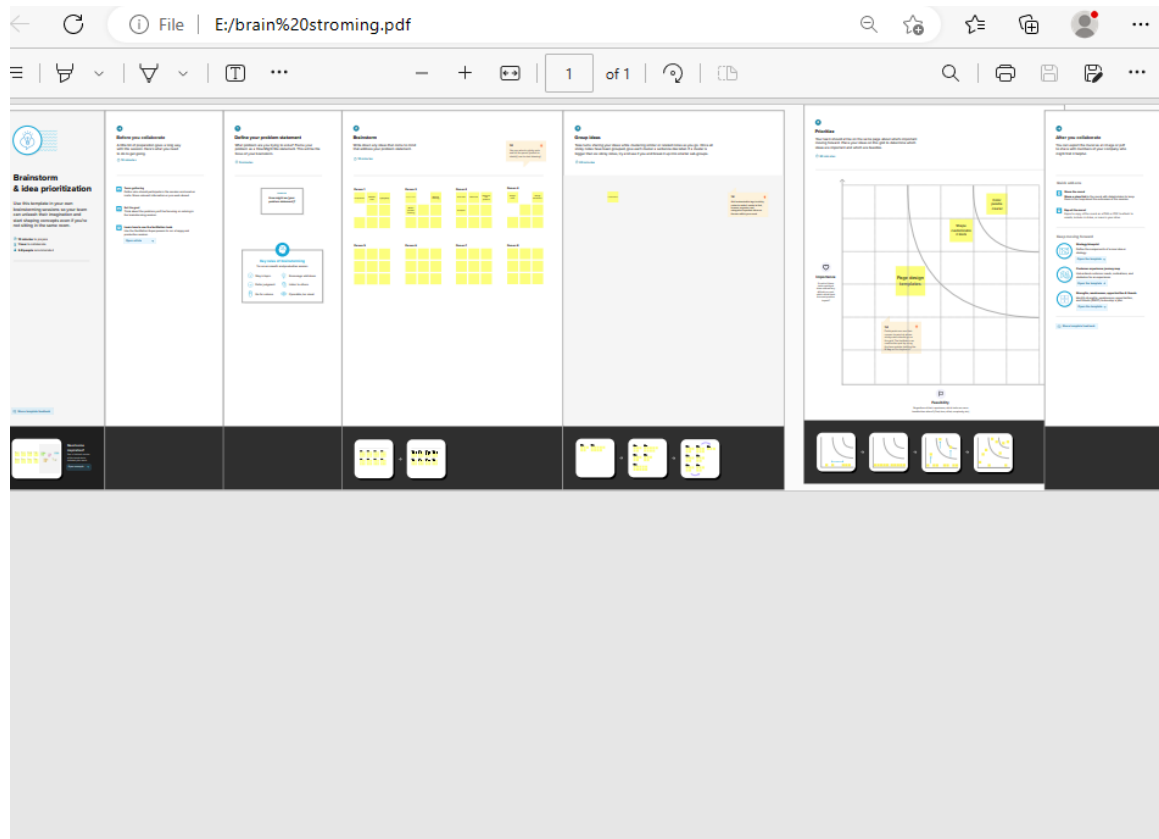
Purpose

The app provides study materials for many technical, arts and architectural fields. The learners could choose their field of interest and go on with the learning process.
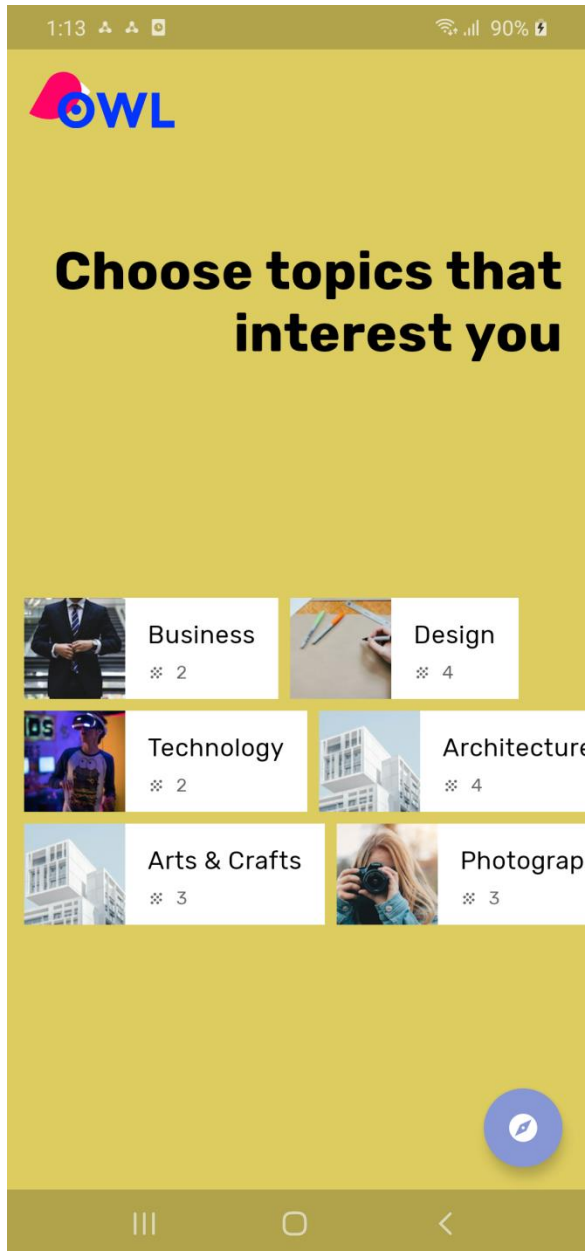
Problem Definition and thinking

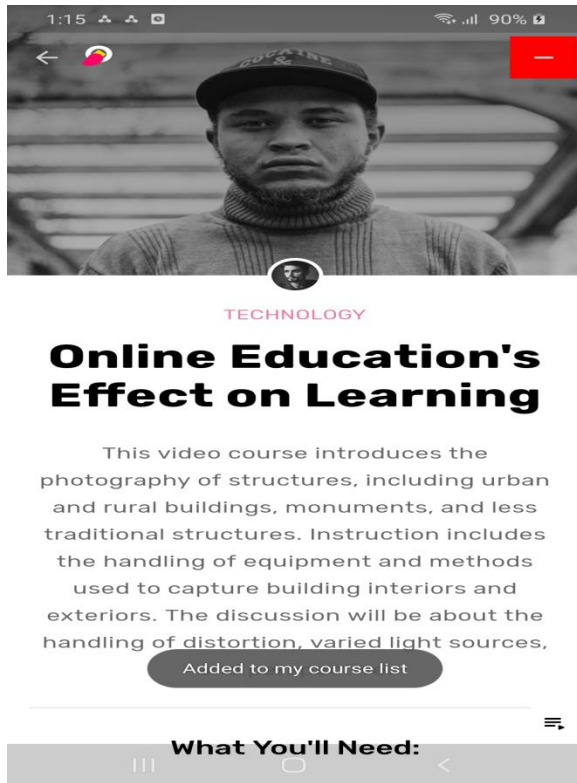2.1. Empathy Map
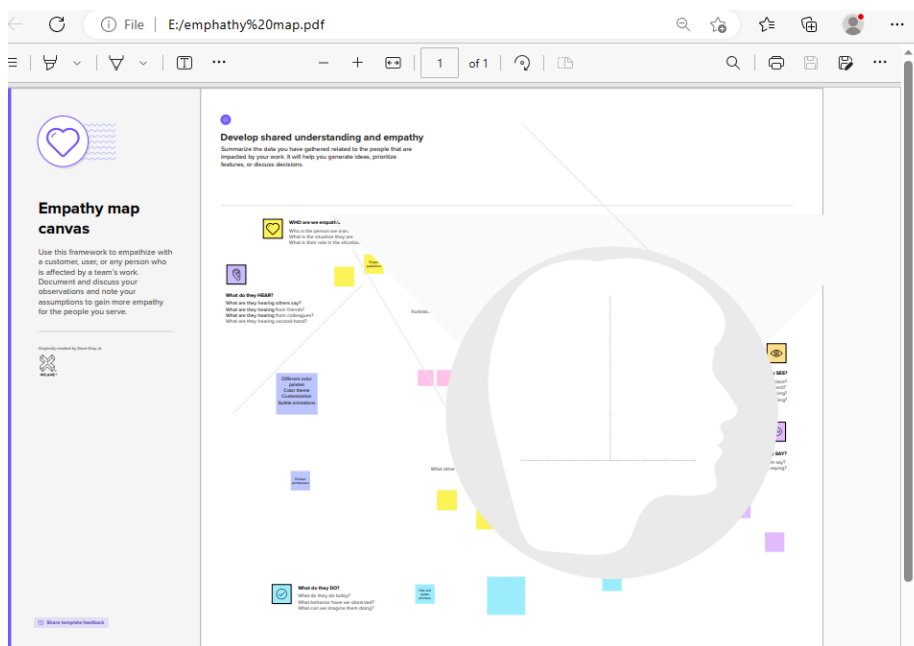
2.2. Ideation and Brainstorming Map

Result

Topic Select   **My Course**
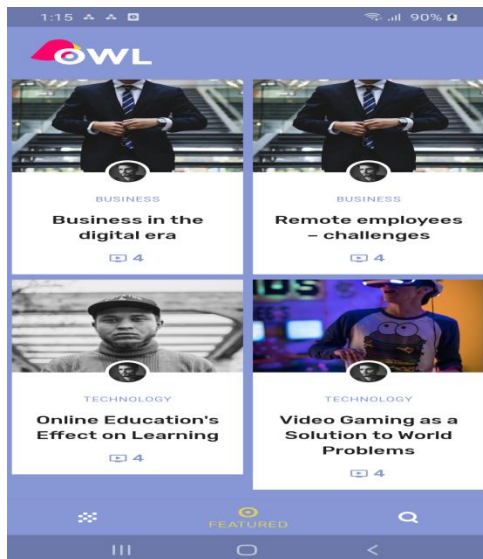
Detail

Featured

Lesson

Advantages

The study app provides a permanent source of education with convenient accessibility. It is a cost effective way of systematic and improved learning ability

Disadvantages

The app provides learning facilities without any physical interaction and there is no direct response. Software and hardware issues may also affect the learning process.

Conclusion

Learning through online technology has made the learning process faster, easily understandable and convenient. Many institutions have made it a necessity for their teachers and students to make the best use of apps. With increasing use of learning platforms, the institutions can aid benefits such as lower cost of operations, higher efficiency, easier management, and other many business benefits.

Future Scope

The app could be modified to get feedback from the users and to provide better on look to the emerging technologies.

Appendix

A. Source Code
   AndroidManifest.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:tools="http://schemas.android.com/tools">

<uses-permission android:name="android.permission.INTERNET" />

<application
android:name="com.devikumari.courses.base.CourseApplication"
android:allowBackup="false"
android:icon="@mipmap/ic_launcher"
android:label="@string/app_name"
android:supportsRtl="true"
android:theme="@style/Theme.Course"
android:usesCleartextTraffic="true"
tools:targetApi="31" >
<activity
```

```xml
android:name="com.devikumari.courses.base.MainActivity"
android:exported="true" >
<intent-filter>
<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />
</intent-filter>
</activity>
</application>

</manifest>
```

build.gradle

```gradle
buildscript{
ext{
gradle_version = '7.4.1'
kotlin_version = '1.8.0'
google_services_version = '4.3.14'
compose_bom_version = '2023.01.00'
material3_version = '1.1.0-beta01'
material_version = '1.4.0'
compose_version = '1.4.0'
hilt_version = '2.45'
hilt_navigation_compose_version = '1.0.0'
core_version = '1.8.0'
firebase_bom_version = '31.2.3'
constraintlayout_version = '1.0.1'
coil_version = '2.2.2'
accompanist_pager_version = '0.18.0'
materialchip_version = '3.0.5'
navigation_version = '2.6.0-alpha05'
preview_version = '1.4.0'
foundation_version = '1.3.0'
}
dependencies {
classpath"com.google.gms:google-services:$google_services_version"
classpath"com.google.dagger:hilt-android-gradle-plugin:$hilt_version"
}
}

plugins {
id 'com.android.application' version "${gradle_version}" apply false
id 'com.android.library' version "${gradle_version}" apply false
id 'org.jetbrains.kotlin.android' version "${kotlin_version}" apply false
}

task clean(type: Delete) {
delete rootProject.buildDir
}
```

settings.gradle

```gradle
pluginManagement{
repositories {
google()
```

```
mavenCentral()
gradlePluginPortal()
}
}
dependencyResolutionManagement{
repositoriesMode.set(RepositoriesMode.FAIL_ON_PROJECT_REPOS)
    repositories {
google()
mavenCentral()
}
}
rootProject.name = "Courses"
include ':app'
```

build.gradle(app)

```
plugins {
id "com.android.application"
id "kotlin-android"
id "kotlin-kapt"
id "com.google.gms.google-services"
id "dagger.hilt.android.plugin"
id "kotlin-parcelize"
}

android {
compileSdk33

defaultConfig{
applicationId"com.devikumari.courses"
minSdk21
targetSdk33
versionCode1
versionName"1.0"

testInstrumentationRunner"androidx.test.runner.AndroidJUnitRunner"
}

buildTypes{
release {
minifyEnabledfalse
proguardFilesgetDefaultProguardFile('proguard-android-optimize.txt'),
'proguard-rules.pro'
}
    }
compileOptions{
sourceCompatibility JavaVersion.VERSION_11
targetCompatibility JavaVersion.VERSION_11
}
kotlinOptions{
jvmTarget = JavaVersion.VERSION_11
}
buildFeatures{
compose true
}
composeOptions{
```

```
kotlinCompilerExtensionVersioncompose_version
}
namespace 'com.devikumari.courses'
}

dependencies {
//Compose
implementation platform("androidx.compose:compose-bom:$compose_bom_version")
    implementation "androidx.compose.material3:material3:$material3_version"
implementation "androidx.compose.material:material:$material_version"
implementation "androidx.compose.material:material-icons-
extended:$material_version"
//Hilt
implementation "com.google.dagger:hilt-android:$hilt_version"
kapt"com.google.dagger:hilt-android-compiler:$hilt_version"
//Hilt Navigation Compose
implementation "androidx.hilt:hilt-navigation-
compose:$hilt_navigation_compose_version"
implementation"androidx.core:core-ktx:$core_version"
//Firebase
implementation platform("com.google.firebase:firebase-
bom:$firebase_bom_version")
implementation"com.google.firebase:firebase-firestore-ktx"
//ConstraintLayout
implementation("androidx.constraintlayout:constraintlayout-
compose:$constraintlayout_version")
//Image Loading
implementation("io.coil-kt:coil-compose:$coil_version")
//pager
implementation("com.google.accompanist:accompanist-
pager:$accompanist_pager_version")
//chips
implementation("com.robertlevonyan.compose:materialchip:$materialchip_version
")
//navigation
implementation("androidx.navigation:navigation-compose:$navigation_version")
    implementation("androidx.compose.ui:ui-tooling-preview:$preview_version")

implementation("androidx.compose.foundation:foundation:$foundation_version")
}

gradle-wrapper properties
#Wed Mar 22 22:44:54 IST 2023
distributionBase=GRADLE_USER_HOME
distributionUrl=https\://services.gradle.org/distributions/gradle-7.5-bin.zip
distributionPath=wrapper/dists
zipStorePath=wrapper/dists
zipStoreBase=GRADLE_USER_HOME
```