CSE224 (FUNAMENTALS OF ANDROID)

ACADEMIC TASK 3 (PROJECT)

FOOD RECIPE APP

Bachelor Of Technology

(COMPUTER SCIENCE ENGINEERING)

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1. **Github Link :**

2. **Code :**

   a. SplashActivity.kt

```kotlin
package com.project1.recipeapp

import android.content.Intent
import android.os.Bundle
import android.util.Log
import android.view.View
import android.widget.Toast
import com.project1.recipeapp.R
import com.project1.recipeapp.database.RecipeDatabase
import com.project1.recipeapp.entities.Category
import com.project1.recipeapp.entities.Meal
import com.project1.recipeapp.entities.MealsItems
import com.project1.recipeapp.interfaces.GetDataService
import com.project1.recipeapp.retofitclient.RetrofitClientInstance
import kotlinx.android.synthetic.main.activity_splash.*
import kotlinx.coroutines.launch
import pub.devrel.easypermissions.AppSettingsDialog
import pub.devrel.easypermissions.EasyPermissions
import retrofit2.Call
import retrofit2.Callback
import retrofit2.Response

class SplashActivity : BaseActivity(),
EasyPermissions.RationaleCallbacks,
    EasyPermissions.PermissionCallbacks {
    private var READ_STORAGE_PERM = 123
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_splash)

        readStorageTask()

        btnGetStarted.setOnClickListener {
            var intent = Intent(this@SplashActivity,
HomeActivity::class.java)
            startActivity(intent)
            finish()
        }
    }


    fun getCategories() {
        val service =
RetrofitClientInstance.retrofitInstance!!.create(GetDataService::class.
java)
        val call = service.getCategoryList()
        call.enqueue(object : Callback<Category> {
            override fun onFailure(call: Call<Category>, t: Throwable)
```

```kotlin
{
                Toast.makeText(this@SplashActivity, "Something went
wrong", Toast.LENGTH_SHORT)
                    .show()
            }

            override fun onResponse(
                call: Call<Category>,
                response: Response<Category>
            ) {

                for (arr in response.body()!!.categorieitems!!) {
                    getMeal(arr.strcategory)
                }
                insertDataIntoRoomDb(response.body())
            }

        })
    }


    fun getMeal(categoryName: String) {
        val service =
RetrofitClientInstance.retrofitInstance!!.create(GetDataService::class.
java)
        val call = service.getMealList(categoryName)
        call.enqueue(object : Callback<Meal> {
            override fun onFailure(call: Call<Meal>, t: Throwable) {

                loader.visibility = View.INVISIBLE
                Toast.makeText(this@SplashActivity, "Something went
wrong", Toast.LENGTH_SHORT)
                    .show()
            }

            override fun onResponse(
                call: Call<Meal>,
                response: Response<Meal>
            ) {

                insertMealDataIntoRoomDb(categoryName, response.body())
            }

        })
    }

    fun insertDataIntoRoomDb(category: Category?) {

        launch {
            this.let {

                for (arr in category!!.categorieitems!!) {
                    RecipeDatabase.getDatabase(this@SplashActivity)
                        .recipeDao().insertCategory(arr)
                }
            }
```

```kotlin
        }


    }

    fun insertMealDataIntoRoomDb(categoryName: String, meal: Meal?) {

        launch {
            this.let {


                for (arr in meal!!.mealsItem!!) {
                    var mealItemModel = MealsItems(
                        arr.id,
                        arr.idMeal,
                        categoryName,
                        arr.strMeal,
                        arr.strMealThumb
                    )
                    RecipeDatabase.getDatabase(this@SplashActivity)
                        .recipeDao().insertMeal(mealItemModel)
                    Log.d("mealData", arr.toString())
                }

                btnGetStarted.visibility = View.VISIBLE
            }
        }


    }

    fun clearDataBase() {
        launch {
            this.let {

RecipeDatabase.getDatabase(this@SplashActivity).recipeDao().clearDb()
            }
        }
    }

    private fun hasReadStoragePermission(): Boolean {
        return EasyPermissions.hasPermissions(
            this,
            android.Manifest.permission.READ_EXTERNAL_STORAGE
        )
    }

    private fun readStorageTask() {
        if (hasReadStoragePermission()) {
            clearDataBase()
            getCategories()
        } else {
            EasyPermissions.requestPermissions(
                this,
                "This app needs access to your storage,",
                READ_STORAGE_PERM,
                android.Manifest.permission.READ_EXTERNAL_STORAGE
```

```kotlin
            )
        }
    }

    override fun onRequestPermissionsResult(
        requestCode: Int,
        permissions: Array<out String>,
        grantResults: IntArray
    ) {
        super.onRequestPermissionsResult(requestCode, permissions,
grantResults)
        EasyPermissions.onRequestPermissionsResult(requestCode,
permissions, grantResults, this)
    }

    override fun onRationaleDenied(requestCode: Int) {

    }

    override fun onRationaleAccepted(requestCode: Int) {

    }

    override fun onPermissionsDenied(requestCode: Int, perms:
MutableList<String>) {
        if (EasyPermissions.somePermissionPermanentlyDenied(this,
perms)) {
            AppSettingsDialog.Builder(this).build().show()
        }
    }

    override fun onPermissionsGranted(requestCode: Int, perms:
MutableList<String>) {

    }
}
```

b. HomeActivity.kt

```kotlin
package com.project1.recipeapp

import android.content.Intent
import android.os.Bundle
import androidx.recyclerview.widget.LinearLayoutManager
import com.project1.recipeapp.R
import com.project1.recipeapp.adapter.MainCategoryAdapter
import com.project1.recipeapp.adapter.SubCategoryAdapter
import com.project1.recipeapp.database.RecipeDatabase
import com.project1.recipeapp.entities.CategoryItems
import com.project1.recipeapp.entities.MealsItems
import kotlinx.android.synthetic.main.activity_home.*
import kotlinx.coroutines.launch

class HomeActivity : BaseActivity() {
    var arrMainCategory = ArrayList<CategoryItems>()
    var arrSubCategory = ArrayList<MealsItems>()
```

```kotlin
    var mainCategoryAdapter = MainCategoryAdapter()
    var subCategoryAdapter = SubCategoryAdapter()

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_home)


        getDataFromDb()

        mainCategoryAdapter.setClickListener(onCLicked)
        subCategoryAdapter.setClickListener(onCLickedSubItem)




    }

    private val onCLicked  = object :
MainCategoryAdapter.OnItemClickListener{
        override fun onClicked(categoryName: String) {
            getMealDataFromDb(categoryName)
        }
    }

    private val onCLickedSubItem  = object :
SubCategoryAdapter.OnItemClickListener{
        override fun onClicked(id: String) {
            var intent = Intent(this@HomeActivity,
DetailActivity::class.java)
            intent.putExtra("id",id)
            startActivity(intent)
        }
    }

    private fun getDataFromDb(){
        launch {
            this.let {
                var cat =
RecipeDatabase.getDatabase(this@HomeActivity).recipeDao().getAllCategor
y()
                arrMainCategory = cat as ArrayList<CategoryItems>
                arrMainCategory.reverse()

                getMealDataFromDb(arrMainCategory[0].strcategory)
                mainCategoryAdapter.setData(arrMainCategory)
                rv_main_category.layoutManager =
LinearLayoutManager(this@HomeActivity,LinearLayoutManager.HORIZONTAL,fa
lse)
                rv_main_category.adapter = mainCategoryAdapter
            }


        }
    }

    private fun getMealDataFromDb(categoryName:String){
```

```
        tvCategory.text = "$categoryName Category"
        launch {
            this.let {
                var cat =
RecipeDatabase.getDatabase(this@HomeActivity).recipeDao().getSpecificMe
alList(categoryName)
                arrSubCategory = cat as ArrayList<MealsItems>
                subCategoryAdapter.setData(arrSubCategory)
                rv_sub_category.layoutManager =
LinearLayoutManager(this@HomeActivity,LinearLayoutManager.HORIZONTAL,fa
lse)
                rv_sub_category.adapter = subCategoryAdapter
            }


        }
    }
}
```

c. DetailsActivity.kt

```
package com.project1.recipeapp


import android.content.Intent
import android.net.Uri
import android.os.Bundle
import android.view.View
import android.widget.Toast
import com.bumptech.glide.Glide
import com.project1.recipeapp.R
import com.project1.recipeapp.entities.MealResponse
import com.project1.recipeapp.interfaces.GetDataService
import com.project1.recipeapp.retofitclient.RetrofitClientInstance
import kotlinx.android.synthetic.main.activity_detail.*
import retrofit2.Call
import retrofit2.Callback
import retrofit2.Response


class DetailActivity : BaseActivity() {

    var youtubeLink = ""
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_detail)

        var id = intent.getStringExtra("id")

        getSpecificItem(id!!)

        imgToolbarBtnBack.setOnClickListener {
            finish()
        }

        btnYoutube.setOnClickListener {
            val uri = Uri.parse(youtubeLink)
```

```kotlin
            val intent = Intent(Intent.ACTION_VIEW, uri)
            startActivity(intent)
        }

    }

    fun getSpecificItem(id:String) {
        val service =
RetrofitClientInstance.retrofitInstance!!.create(GetDataService::class.
java)
        val call = service.getSpecificItem(id)
        call.enqueue(object : Callback<MealResponse> {
            override fun onFailure(call: Call<MealResponse>, t:
Throwable) {

                Toast.makeText(this@DetailActivity, "Something went
wrong", Toast.LENGTH_SHORT)
                    .show()
            }

            override fun onResponse(
                call: Call<MealResponse>,
                response: Response<MealResponse>
            ) {

Glide.with(this@DetailActivity).load(response.body()!!.mealsEntity[0].s
trmealthumb).into(imgItem)

                tvCategory.text =
response.body()!!.mealsEntity[0].strmeal

                var ingredient =
"${response.body()!!.mealsEntity[0].stringredient1}
${response.body()!!.mealsEntity[0].strmeasure1}\n" +

"${response.body()!!.mealsEntity[0].stringredient2}
${response.body()!!.mealsEntity[0].strmeasure2}\n" +

"${response.body()!!.mealsEntity[0].stringredient3}
${response.body()!!.mealsEntity[0].strmeasure3}\n" +

"${response.body()!!.mealsEntity[0].stringredient4}
${response.body()!!.mealsEntity[0].strmeasure4}\n" +

"${response.body()!!.mealsEntity[0].stringredient5}
${response.body()!!.mealsEntity[0].strmeasure5}\n" +

"${response.body()!!.mealsEntity[0].stringredient6}
${response.body()!!.mealsEntity[0].strmeasure6}\n" +

"${response.body()!!.mealsEntity[0].stringredient7}
${response.body()!!.mealsEntity[0].strmeasure7}\n" +

"${response.body()!!.mealsEntity[0].stringredient8}
${response.body()!!.mealsEntity[0].strmeasure8}\n" +
```

```kotlin
"${response.body()!!.mealsEntity[0].stringredient9}
${response.body()!!.mealsEntity[0].strmeasure9}\n" +

"${response.body()!!.mealsEntity[0].stringredient10}
${response.body()!!.mealsEntity[0].strmeasure10}\n" +

"${response.body()!!.mealsEntity[0].stringredient11}
${response.body()!!.mealsEntity[0].strmeasure11}\n" +

"${response.body()!!.mealsEntity[0].stringredient12}
${response.body()!!.mealsEntity[0].strmeasure12}\n" +

"${response.body()!!.mealsEntity[0].stringredient13}
${response.body()!!.mealsEntity[0].strmeasure13}\n" +

"${response.body()!!.mealsEntity[0].stringredient14}
${response.body()!!.mealsEntity[0].strmeasure14}\n" +

"${response.body()!!.mealsEntity[0].stringredient15}
${response.body()!!.mealsEntity[0].strmeasure15}\n" +

"${response.body()!!.mealsEntity[0].stringredient16}
${response.body()!!.mealsEntity[0].strmeasure16}\n" +

"${response.body()!!.mealsEntity[0].stringredient17}
${response.body()!!.mealsEntity[0].strmeasure17}\n" +

"${response.body()!!.mealsEntity[0].stringredient18}
${response.body()!!.mealsEntity[0].strmeasure18}\n" +

"${response.body()!!.mealsEntity[0].stringredient19}
${response.body()!!.mealsEntity[0].strmeasure19}\n" +

"${response.body()!!.mealsEntity[0].stringredient20}
${response.body()!!.mealsEntity[0].strmeasure20}\n"

                tvIngredients.text = ingredient
                tvInstructions.text =
response.body()!!.mealsEntity[0].strinstructions

                if (response.body()!!.mealsEntity[0].strsource !=
null){
                    youtubeLink =
response.body()!!.mealsEntity[0].strsource
                }else{
                    btnYoutube.visibility = View.GONE
                }
            }

        })
    }


}
```

d. BaseActivity.kt

```kotlin
package com.project1.recipeapp

import android.app.job.JobInfo
import android.content.Intent
import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import kotlinx.coroutines.CoroutineScope
import kotlinx.coroutines.Dispatchers
import kotlinx.coroutines.Job
import kotlin.coroutines.CoroutineContext

open class BaseActivity : AppCompatActivity(),CoroutineScope {
    private lateinit var job: Job
    override val coroutineContext:CoroutineContext
    get() = job +Dispatchers.Main


    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        job = Job()
    }

    override fun onDestroy() {
        super.onDestroy()
        job.cancel()
    }

}
```

e. Category.kt

```kotlin
package com.project1.recipeapp.entities

import androidx.room.*
import com.project1.recipeapp.entities.converter.CategoryListConverter
import com.google.gson.annotations.Expose
import com.google.gson.annotations.SerializedName

@Entity(tableName = "Category")
data class Category(
    @PrimaryKey(autoGenerate = true)
    var id:Int,

    @ColumnInfo(name = "categoryItems")
    @Expose
    @SerializedName("categories")
    @TypeConverters(CategoryListConverter::class)
    var categorieitems: List<CategoryItems>? = null
)
```

f. Categoryitems.kt

```kotlin
package com.project1.recipeapp.entities

import androidx.room.ColumnInfo
import androidx.room.Entity
import androidx.room.PrimaryKey
import com.google.gson.annotations.Expose
import com.google.gson.annotations.SerializedName
@Entity(tableName = "CategoryItems")
data class CategoryItems(
    @PrimaryKey(autoGenerate = true)
    var id:Int,

    @ColumnInfo(name = "idcategory")
    @Expose
    @SerializedName("idCategory")
    val idcategory: String,

    @ColumnInfo(name = "strcategory")
    @Expose
    @SerializedName("strCategory")
    val strcategory: String,

    @ColumnInfo(name = "strcategorythumb")
    @Expose
    @SerializedName("strCategoryThumb")
    val strcategorythumb: String,

    @ColumnInfo(name = "strcategorydescription")
    @Expose
    @SerializedName("strCategoryDescription")
    val strcategorydescription: String
)
```

g. Recipes.kt

```kotlin
package com.project1.recipeapp.entities

import androidx.room.ColumnInfo
import androidx.room.Entity
import androidx.room.PrimaryKey
import java.io.Serializable

@Entity(tableName = "Recipes")
data class Recipes(
        @PrimaryKey(autoGenerate = true)
        var id:Int,

        @ColumnInfo(name = "dishName")
        var dishName:String
) : Serializable
```

h. RecipeDatabase.kt

```kotlin
package com.project1.recipeapp.database

import android.content.Context
import androidx.room.Database
import androidx.room.Room
import androidx.room.RoomDatabase
import androidx.room.TypeConverters
import com.project1.recipeapp.dao.RecipeDao
import com.project1.recipeapp.entities.converter.CategoryListConverter
import com.project1.recipeapp.entities.Category
import com.project1.recipeapp.entities.CategoryItems
import com.project1.recipeapp.entities.Meal
import com.project1.recipeapp.entities.MealsItems
import com.project1.recipeapp.entities.Recipes
import com.project1.recipeapp.entities.converter.MealListConverter

@Database(entities = [Recipes::class, CategoryItems::class,
Category::class, Meal::class, MealsItems::class],version =
1,exportSchema = false)
@TypeConverters(CategoryListConverter::class, MealListConverter::class)
abstract class RecipeDatabase: RoomDatabase() {

    companion object{

        var recipesDatabase: RecipeDatabase? = null

        @Synchronized
        fun getDatabase(context: Context): RecipeDatabase {
            if (recipesDatabase == null){
                recipesDatabase = Room.databaseBuilder(
                        context,
                        RecipeDatabase::class.java,
                        "recipe.db"
                ).build()
            }
            return recipesDatabase!!
        }
    }

    abstract fun recipeDao(): RecipeDao
}
```

3. UI Code :-

a. activity_splash.xml

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

```xml
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@color/white"
    tools:context="com.project1.recipeapp.SplashActivity">

    <ImageView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:scaleType="centerCrop"
        android:src="@drawable/bg_splash"/>

    <FrameLayout

        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentBottom="true"
        android:layout_alignParentStart="true"
        android:layout_marginBottom="@dimen/_20sdp"
        android:layout_marginStart="@dimen/_20sdp"
        android:padding="@dimen/_5sdp"
        android:gravity="center">

        <Button
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:id="@+id/btnGetStarted"
            android:textColor="@color/white"
            android:paddingStart="@dimen/_20sdp"
            android:paddingEnd="@dimen/_20sdp"
            android:visibility="invisible"
            android:background="@drawable/btn_bg"
            android:text="Get Started"/>

        <ProgressBar
            android:layout_width="@dimen/_20sdp"
            android:layout_height="@dimen/_20sdp"
            android:layout_gravity="center"
            android:outlineAmbientShadowColor="@color/brown"
            android:id="@+id/loader"/>

    </FrameLayout>


</RelativeLayout>
```

b. activity_home.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@color/white"
```

```xml
    tools:context="com.project1.recipeapp.SplashActivity">


<ScrollView
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:scrollbars="none">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical">

        <TextView
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:fontFamily="@font/gilroy_bold"
            android:padding="@dimen/_10sdp"
            android:text="All Recipes"
            android:textColor="@color/black"
            android:textSize="@dimen/_20ssp" />

        <androidx.cardview.widget.CardView
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginStart="@dimen/_10sdp"
            android:layout_marginTop="@dimen/_10sdp"
            android:layout_marginEnd="@dimen/_10sdp"
            app:cardCornerRadius="@dimen/_10sdp"
            app:cardElevation="@dimen/_10sdp">


            <SearchView
                android:id="@+id/search_view"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:background="@drawable/search_bg"
                android:iconifiedByDefault="false"
                android:queryBackground="@color/transparent"
                android:queryHint="Search for recipes"
                android:theme="@style/ThemeOverlay.Search" />

        </androidx.cardview.widget.CardView>

        <androidx.recyclerview.widget.RecyclerView
            android:id="@+id/rv_main_category"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_margin="@dimen/_10sdp"
            android:orientation="horizontal"
            tools:itemCount="1"
            tools:listitem="@layout/item_rv_main_category" />

        <TextView
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:fontFamily="@font/gilroy_bold"
```

```xml
                android:paddingStart="@dimen/_10sdp"
                android:text="Category name"
                android:id="@+id/tvCategory"
                android:textColor="@color/black"
                android:textSize="@dimen/_15ssp" />

            <androidx.recyclerview.widget.RecyclerView
                android:id="@+id/rv_sub_category"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:layout_margin="@dimen/_10sdp"
                android:orientation="horizontal"
                tools:itemCount="1"
                tools:listitem="@layout/item_rv_sub_category" />


        </LinearLayout>
    </ScrollView>


</RelativeLayout>
```

c. activity_details.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<androidx.coordinatorlayout.widget.CoordinatorLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@color/white"
    tools:context="com.project1.recipeapp.DetailActivity">


    <com.google.android.material.appbar.AppBarLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/appBar"
        android:theme="@style/Theme.AppCompat.NoActionBar"
        android:background="@color/transparent">


        <com.google.android.material.appbar.CollapsingToolbarLayout
            android:layout_width="match_parent"
            android:layout_height="@dimen/_250sdp"
            app:contentScrim="@color/yellow"
            app:expandedTitleMarginStart="@dimen/_16sdp"
            app:expandedTitleMarginEnd="@dimen/_72sdp"

app:layout_scrollFlags="scroll|enterAlways|enterAlwaysCollapsed">


            <com.makeramen.roundedimageview.RoundedImageView
                android:layout_width="match_parent"
```

```xml
            android:layout_height="@dimen/_250sdp"
            android:id="@+id/imgItem"
            android:scaleType="centerCrop"
            app:layout_collapseMode="parallax"
            android:src="@drawable/bg_splash"
            app:layout_collapseParallaxMultiplier="0.7"
            app:riv_corner_radius_bottom_right="@dimen/_20sdp"
            app:riv_corner_radius_bottom_left="@dimen/_20sdp"/>

        <androidx.appcompat.widget.Toolbar
            android:layout_width="match_parent"
            android:layout_height="?attr/actionBarSize"
            android:id="@+id/toolbar"
            app:layout_scrollFlags="scroll|enterAlways"
            app:titleTextColor="@color/white"/>

        <ImageButton
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:paddingStart="@dimen/_12sdp"
            android:paddingTop="@dimen/_8sdp"
            android:paddingEnd="@dimen/_4sdp"
            android:paddingBottom="@dimen/_8sdp"
            android:layout_margin="@dimen/_10sdp"
            android:layout_gravity="start"
            android:background="@drawable/btn_bg2"
            android:id="@+id/imgToolbarBtnBack"
            android:src="@drawable/ic_back"/>

        <ImageButton
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:padding="@dimen/_8sdp"
            android:layout_margin="@dimen/_10sdp"
            android:layout_gravity="end"
            android:background="@drawable/btn_bg2"
            android:id="@+id/imgToolbarBtnFav"
            android:src="@drawable/ic_fav_unfill"/>


    </com.google.android.material.appbar.CollapsingToolbarLayout>
</com.google.android.material.appbar.AppBarLayout>


<androidx.core.widget.NestedScrollView
    android:id="@+id/scrollView"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:clipToPadding="false"
    app:layout_behavior="@string/appbar_scrolling_view_behavior">
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:gravity="center"
    android:orientation="vertical">
    <androidx.cardview.widget.CardView
```

```xml
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"

            android:layout_margin="@dimen/_10sdp"
            app:cardCornerRadius="@dimen/_10sdp"
            app:cardElevation="@dimen/_5sdp">
        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:orientation="vertical"
            android:layout_marginStart="@dimen/_20sdp"
            android:layout_marginEnd="@dimen/_20sdp">

            <TextView
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:fontFamily="@font/gilroy_bold"
                android:textAlignment="center"
                android:padding="@dimen/_10sdp"
                android:text="Category name"
                android:id="@+id/tvCategory"
                android:textColor="@color/black"
                android:textSize="@dimen/_15ssp" />

            <LinearLayout
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:gravity="center"
                android:orientation="horizontal">

                <LinearLayout
                    android:layout_width="wrap_content"
                    android:layout_height="match_parent"
                    android:gravity="center"
                    android:orientation="horizontal">

                    <ImageView
                        android:layout_width="wrap_content"
                        android:layout_height="wrap_content"

android:src="@drawable/ic_baseline_access_time_24"/>


                    <TextView
                        android:id="@+id/tvTime"
                        android:layout_width="match_parent"
                        android:layout_height="wrap_content"
                        android:text="30 min"
                        android:textSize="@dimen/_10ssp"
                        android:textColor="@color/hintTextColor"
                        android:maxEms="10"
                        android:maxLines="2"
                        android:textStyle="bold"
                        android:fontFamily="@font/gilroy_light"
                        android:paddingTop="@dimen/_10sdp"
                        android:paddingStart="@dimen/_5sdp"
                        android:paddingBottom="@dimen/_10sdp"/>
```

```xml
                </LinearLayout>

                <LinearLayout
                    android:layout_width="wrap_content"
                    android:layout_height="match_parent"
                    android:gravity="center"
                    android:layout_marginStart="@dimen/_10sdp"
                    android:layout_marginEnd="@dimen/_10sdp"
                    android:orientation="horizontal">

                    <ImageView
                        android:layout_width="wrap_content"
                        android:layout_height="wrap_content"

android:src="@drawable/ic_baseline_access_time_24"/>


                    <TextView
                        android:id="@+id/cal"
                        android:layout_width="match_parent"
                        android:layout_height="wrap_content"
                        android:text="247 cals"
                        android:textSize="@dimen/_10ssp"
                        android:textColor="@color/hintTextColor"
                        android:maxEms="10"
                        android:maxLines="2"
                        android:textStyle="bold"
                        android:fontFamily="@font/gilroy_light"
                        android:paddingTop="@dimen/_10sdp"
                        android:paddingStart="@dimen/_5sdp"
                        android:paddingBottom="@dimen/_10sdp"/>
                </LinearLayout>

                <LinearLayout
                    android:layout_width="wrap_content"
                    android:layout_height="match_parent"
                    android:gravity="center"
                    android:orientation="horizontal">

                    <ImageView
                        android:layout_width="wrap_content"
                        android:layout_height="wrap_content"

android:src="@drawable/ic_baseline_access_time_24"/>


                    <TextView
                        android:id="@+id/tvServing"
                        android:layout_width="match_parent"
                        android:layout_height="wrap_content"
                        android:text="3 persons"
                        android:textSize="@dimen/_10ssp"
                        android:textColor="@color/hintTextColor"
                        android:maxEms="10"
                        android:maxLines="2"
                        android:textStyle="bold"
                        android:fontFamily="@font/gilroy_light"
```

```xml
                    android:paddingTop="@dimen/_10sdp"
                    android:paddingStart="@dimen/_5sdp"
                    android:paddingBottom="@dimen/_10sdp"/>
            </LinearLayout>

        </LinearLayout>


    </LinearLayout>
    </androidx.cardview.widget.CardView>

    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:fontFamily="@font/gilroy_bold"
        android:paddingStart="@dimen/_10sdp"
        android:text="Ingredients"
        android:textColor="@color/black"
        android:textSize="@dimen/_15ssp" />

    <androidx.cardview.widget.CardView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="@dimen/_10sdp"
        app:cardCornerRadius="@dimen/_10sdp"
        app:cardElevation="@dimen/_5sdp">
        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:orientation="vertical">

            <TextView
                android:id="@+id/tvIngredients"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:textSize="@dimen/_10ssp"
                android:textColor="@color/hintTextColor"
                android:textStyle="bold"
                android:fontFamily="@font/gilroy_light"
                android:paddingTop="@dimen/_10sdp"
                android:paddingStart="@dimen/_5sdp"
                android:paddingBottom="@dimen/_10sdp"/>

        </LinearLayout>
    </androidx.cardview.widget.CardView>

    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:fontFamily="@font/gilroy_bold"
        android:paddingStart="@dimen/_10sdp"
        android:text="Instructions"
        android:textColor="@color/black"
        android:textSize="@dimen/_15ssp" />

    <androidx.cardview.widget.CardView
        android:layout_width="match_parent"
```

```xml
            android:layout_height="wrap_content"
            android:layout_margin="@dimen/_10sdp"
            app:cardBackgroundColor="@color/pink"
            app:cardCornerRadius="@dimen/_10sdp"
            app:cardElevation="@dimen/_5sdp">
            <LinearLayout
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:orientation="vertical">

                <TextView
                    android:id="@+id/tvInstructions"
                    android:layout_width="match_parent"
                    android:layout_height="wrap_content"
                    android:textSize="@dimen/_10ssp"
                    android:textColor="@color/hintTextColor"
                    android:textStyle="bold"
                    android:fontFamily="@font/gilroy_light"
                    android:paddingTop="@dimen/_10sdp"
                    android:paddingStart="@dimen/_5sdp"
                    android:paddingBottom="@dimen/_10sdp"/>

            </LinearLayout>
        </androidx.cardview.widget.CardView>


        <Button
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:id="@+id/btnYoutube"
            android:textColor="@color/white"
            android:layout_margin="@dimen/_10sdp"
            android:paddingStart="@dimen/_20sdp"
            android:paddingEnd="@dimen/_20sdp"
            android:background="@drawable/btn_bg3"
            android:text="YOutube"/>

    </LinearLayout>
    </androidx.core.widget.NestedScrollView>



</androidx.coordinatorlayout.widget.CoordinatorLayout>
```

d. item_rv_main_category.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    tools:context="com.project1.recipeapp.SplashActivity">
```
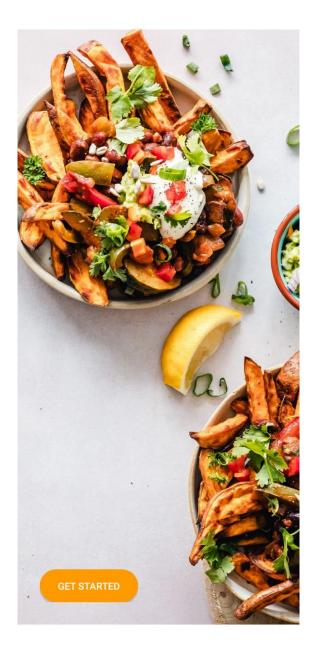
```xml
    <androidx.cardview.widget.CardView
        android:layout_width="@dimen/_80sdp"
        android:layout_height="@dimen/_80sdp"
        app:cardBackgroundColor="@color/yellow"
        android:layout_margin="@dimen/_10sdp"
        app:cardCornerRadius="@dimen/_10sdp"
        app:cardElevation="@dimen/_5sdp">

        <RelativeLayout
            android:layout_width="match_parent"
            android:layout_height="match_parent">


            <ImageView
                android:layout_width="@dimen/_70sdp"
                android:layout_height="@dimen/_70sdp"
                android:id="@+id/img_dish"
                android:layout_alignParentEnd="true"
                android:layout_alignParentTop="true"
                android:layout_marginTop="-20dp"
                android:layout_marginRight="-20dp"
                android:src="@drawable/cat_img"/>

            <TextView
                android:id="@+id/tv_dish_name"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:text="Dish Name"
                android:textSize="@dimen/_11ssp"
                android:textColor="@color/white"
                android:layout_alignParentBottom="true"
                android:layout_alignParentStart="true"
                android:maxEms="10"
                android:maxLines="2"
                android:fontFamily="@font/gilroy_bold"
                android:padding="@dimen/_10sdp"/>
        </RelativeLayout>


    </androidx.cardview.widget.CardView>



</RelativeLayout>
```

e. item_subcategory.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="wrap_content"
    android:orientation="vertical"
    android:layout_height="wrap_content"
    tools:context="com.project1.recipeapp.SplashActivity">
```

```xml
<androidx.cardview.widget.CardView
    android:layout_width="@dimen/_180sdp"
    android:layout_height="@dimen/_260sdp"
    android:layout_margin="@dimen/_10sdp"
    app:cardCornerRadius="@dimen/_10sdp"
    app:cardElevation="@dimen/_5sdp">

    <ImageView
        android:id="@+id/img_dish"
        android:layout_width="match_parent"
        android:scaleType="centerCrop"
        android:layout_height="match_parent" />


</androidx.cardview.widget.CardView>
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="vertical">


    <TextView
        android:id="@+id/tv_dish_name"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Dish Name"
        android:textSize="@dimen/_15ssp"
        android:textColor="@color/black"
        android:maxLines="2"
        android:fontFamily="@font/gilroy_light"
        android:paddingStart="@dimen/_10sdp"/>
</LinearLayout>

</LinearLayout>
```

4. Output :

All Recipes

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Vegetarian Category

Spicy Arrabiata Penne

Spanish Tortilla

GET STARTED

Spicy Arrabiata Penne

🕐 30 min   🕐 247 cals   🕐 3 persons

Ingredients

penne rigate   1 pound
olive oil   1/4 cup
garlic   3 cloves
chopped tomatoes   1 tin
red chile flakes   1/2 teaspoon
italian seasoning   1/2 teaspoon
basil   6 leaves
Parmigiano-Reggiano   spinkling

null   null
null   null
null   null
null   null
null   null

Instructions

Spicy Arrabiata Penne

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basil   6 leaves
Parmigiano-Reggiano   spinkling

null   null
null   null
null   null
null   null
null   null

Instructions

Bring a large pot of water to a boil. Add kosher salt to the boiling water, then add the pasta. Cook according to the package instructions, about 9 minutes.
In a large skillet over medium-high heat, add the olive oil and heat until the oil starts to shimmer. Add the garlic and cook, stirring, until fragrant, 1 to 2 minutes. Add the chopped tomatoes, red chile flakes, Italian seasoning and salt and pepper to taste. Bring to a boil and cook for 5 minutes.
Remove from the heat and add the chopped basil.
Drain the pasta and add it to the sauce. Garnish with Parmigiano-Reggiano flakes and more basil and serve warm.