

Extra Credit Lab

Mobile Application Development – 2

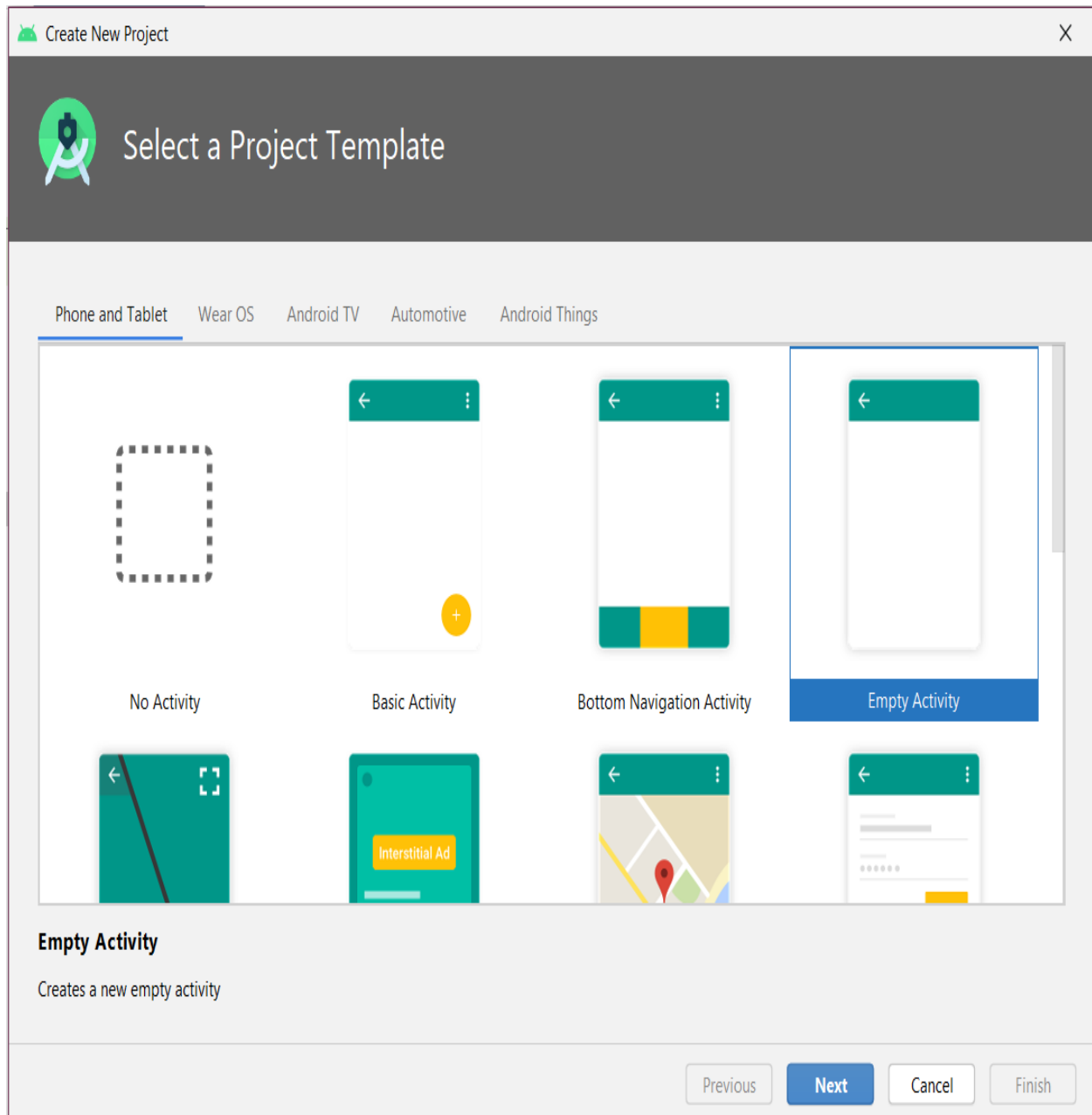
Rebecca Moses Dmello

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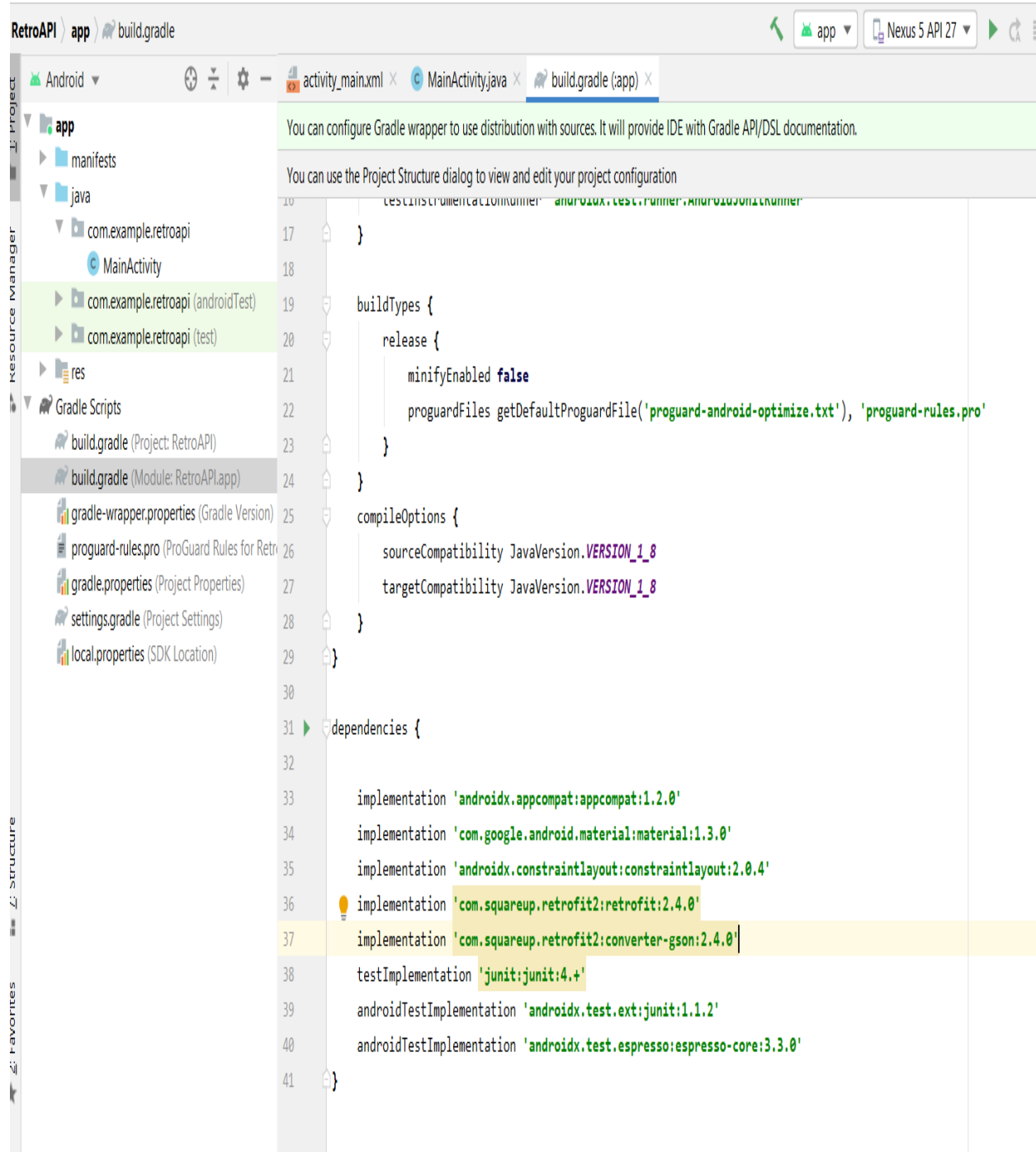
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I am confirming that I have completed this classwork assignment completely based on the requirements and it is working and fully functional.

Step 1: Create a New Project and Select Empty Activity



Step 2: Open build.gradle file inside the Gradle Scripts folder and add following line in order to allow your application to use retrofit and gson converter and click sync now.




Step 3: Create a new Java class by right clicking on the package -> new -> java class and name it as **Post and add the following code in it.**



The screenshot shows an IDE with four tabs: AndroidManifest.xml, activity_main.xml, MainActivity.java, and Post.java. The Post.java tab is active, displaying the following Java code:

```
1  package com.example.retroapi;
2
3  import com.google.gson.annotations.SerializedName;
4
5  public class Post {
6      private int userId;
7
8      private int id;
9
10     private String title;
11
12     @SerializedName("body")
13     private String text;
14
15     public int getUserId() {
16         return userId;
17     }
18
19     public int getId() {
20         return id;
21     }
22
23     public String getTitle() {
24         return title;
25     }
26
27     public String getText() {
28         return text;
29     }
30 }
31
```

Step 4: Create a new Interface by right clicking on the package -> new -> class and name it as `JsonPlaceholderApi` and select interface add the following code in it.



```
1 package com.example.retroapi;
2
3 import java.util.List;
4 import retrofit2.Call;
5 import retrofit2.http.GET;
6 public interface JsonPlaceholderApi {
7
8     //posts bcz in the url - https://jsonplaceholder.typicode.com/posts
9
10    @GET("posts")
11    Call<List<Post>> getPosts();
12
13 }
14
```

Step 5: Add following code in MainActivity.java class and select

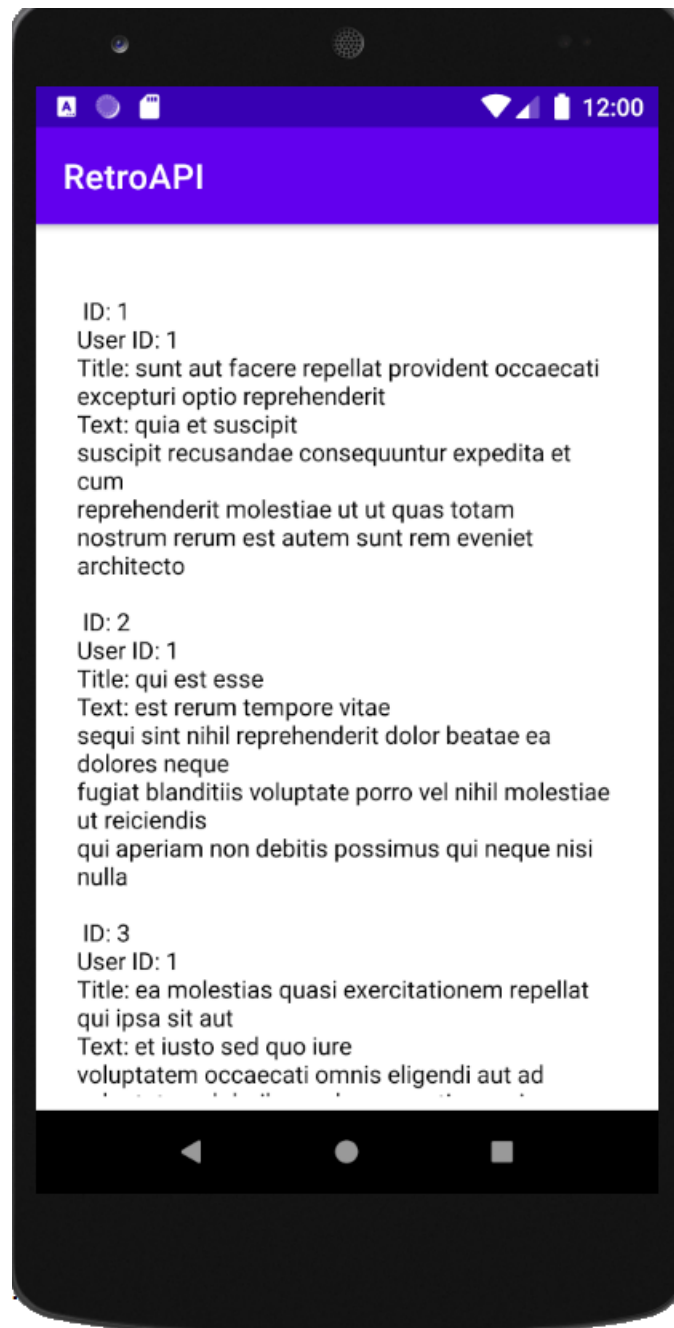
```
AndroidManifest.xml × activity_main.xml × MainActivity.java × JsonPlaceholderApi.java ×
10 import retrofit2.Retrofit;
11 import retrofit2.converter.gson.GsonConverterFactory;
12 public class MainActivity extends AppCompatActivity {
13     private TextView textViewResult;
14     @Override
15     protected void onCreate(Bundle savedInstanceState) {
16         super.onCreate(savedInstanceState);
17         setContentView(R.layout.activity_main);
18         textViewResult = findViewById(R.id.text_view_result);
19         Retrofit retrofit = new Retrofit.Builder().baseUrl("https://jsonplaceholder.typicode.com/")
20             .addConverterFactory(GsonConverterFactory.create()).build();
21         JsonPlaceholderApi jsonPlaceholderApi = retrofit.create(JsonPlaceholderApi.class);
22         Call<List<Post>> call = jsonPlaceholderApi.getPosts();
23         call.enqueue(new Callback<List<Post>>() {
24             @Override
25             public void onResponse(Call<List<Post>> call, Response<List<Post>> response) {
26                 if(!response.isSuccessful()){
27                     textViewResult.setText("Code " + response.code());
28                     return;
29                 }
30                 List<Post> posts = response.body();
31                 for(Post post: posts){
32                     String content = "";
33                     content += "ID: " + post.getId() + "\n";
34                     content += "User ID: " + post.getUserId() + "\n";
35                     content += "Title: " + post.getTitle() + "\n";
36                     content += "Text: " + post.getText() + "\n";
37
38                     textViewResult.append("\n " + content);
39                 }
40             }
41         })
42     }
43 }
```

```

19 Retrofit retrofit = new Retrofit.Builder().baseUrl("https://jsonplaceholder.typicode.com/")
20     .addConverterFactory(GsonConverterFactory.create()).build();
21 JsonPlaceHolderApi jsonPlaceHolderApi = retrofit.create(JsonPlaceHolderApi.class);
22 Call<List<Post>> call = jsonPlaceHolderApi.getPosts();
23 call.enqueue(new Callback<List<Post>>() {
24     @Override
25     public void onResponse(Call<List<Post>> call, Response<List<Post>> response) {
26         if(!response.isSuccessful()){
27             textViewResult.setText("Code " + response.code());
28             return;
29         }
30         List<Post> posts = response.body();
31         for(Post post: posts){
32             String content = "";
33             content += "ID: "+post.getId()+"\n";
34             content += "User ID: "+post.getUserId() +"\n";
35             content += "Title: " +post.getTitle() +"\n";
36             content += "Text: " +post.getText() + "\n";
37
38             textViewResult.append(" \n "+content);
39         }
40     }
41     @Override
42     public void onFailure(Call<List<Post>> call, Throwable t) {
43         textViewResult.setText(t.getMessage());
44     }
45 });
46
47 }
48 }

```

Step 6: Run your emulator to observe the animations



References:

Retrofit Tutorial

<https://www.youtube.com/watch?v=4JGvDUlfk7Y>

<http://jsonplaceholder.typicode.com/posts>