Lab 5

Description

Based on your lab4 and the example we discuss in the class, implement the database operations in the Android coroutine.

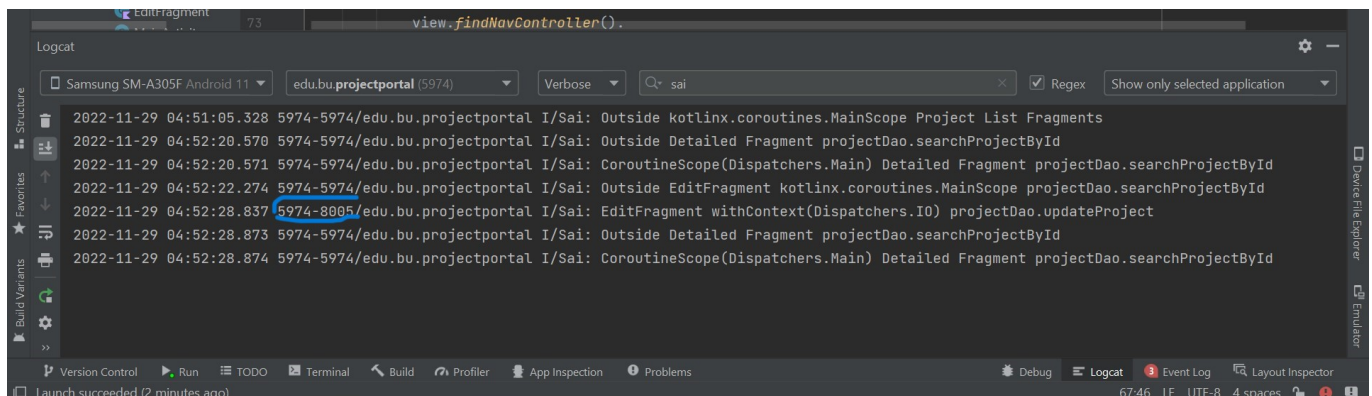[GitHub Repo] https://github.com/CS683/assignment5

For implementation, i took lab 4, in the projectdao interface, i added "suspend" in all the interfaces except the ones which return LiveData, and used "viewLifecycleOwner.lifecycleScope.launch" which was recommended to be used inside fragments.

Problems faced was that , i tried to use "withContext(Dispatchers.IO)" for "searchProjectById" and was trying to the updating the UI with that result, i had issues, so i am using the below code, where there is a update of UI, i am running the required code in the main thread. Two instances i was able to use withContext(Dispatchers.IO) without any issues: one was in addProject and another was in updateProject(In screenshot 1, the thread id of IO thread was 8005)
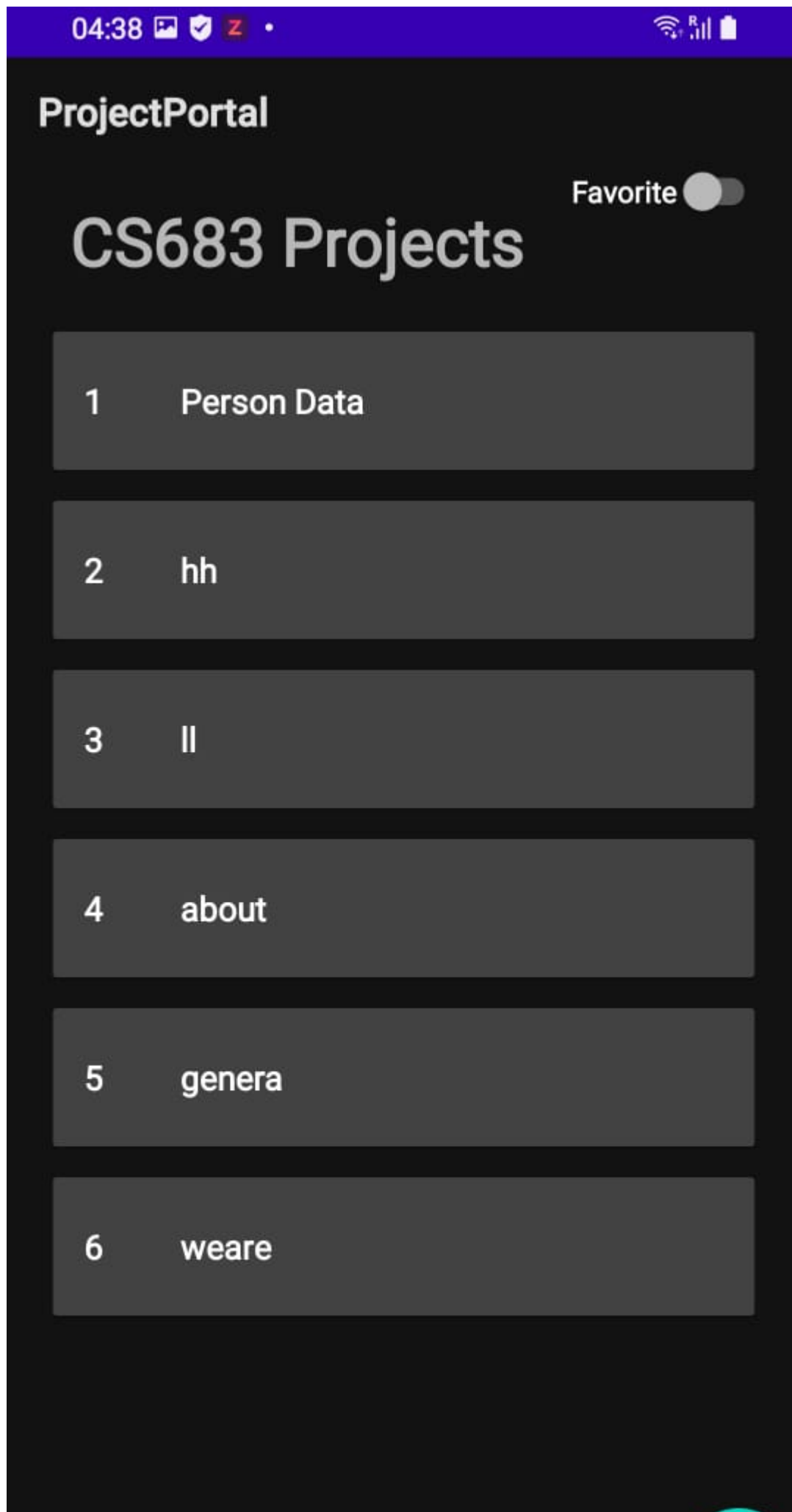
Code Reference:

```
viewLifecycleOwner.lifecycleScope.launch {

val project = projectDao.searchProjectById(position.toLong())
    binding.editProjTitleId.setText(project.title)
    binding.authorsId.setText( project.authors)
    binding.projLinkEdit.setText(project.links)
    binding.editFavId.setChecked(project.favorite)
}
```
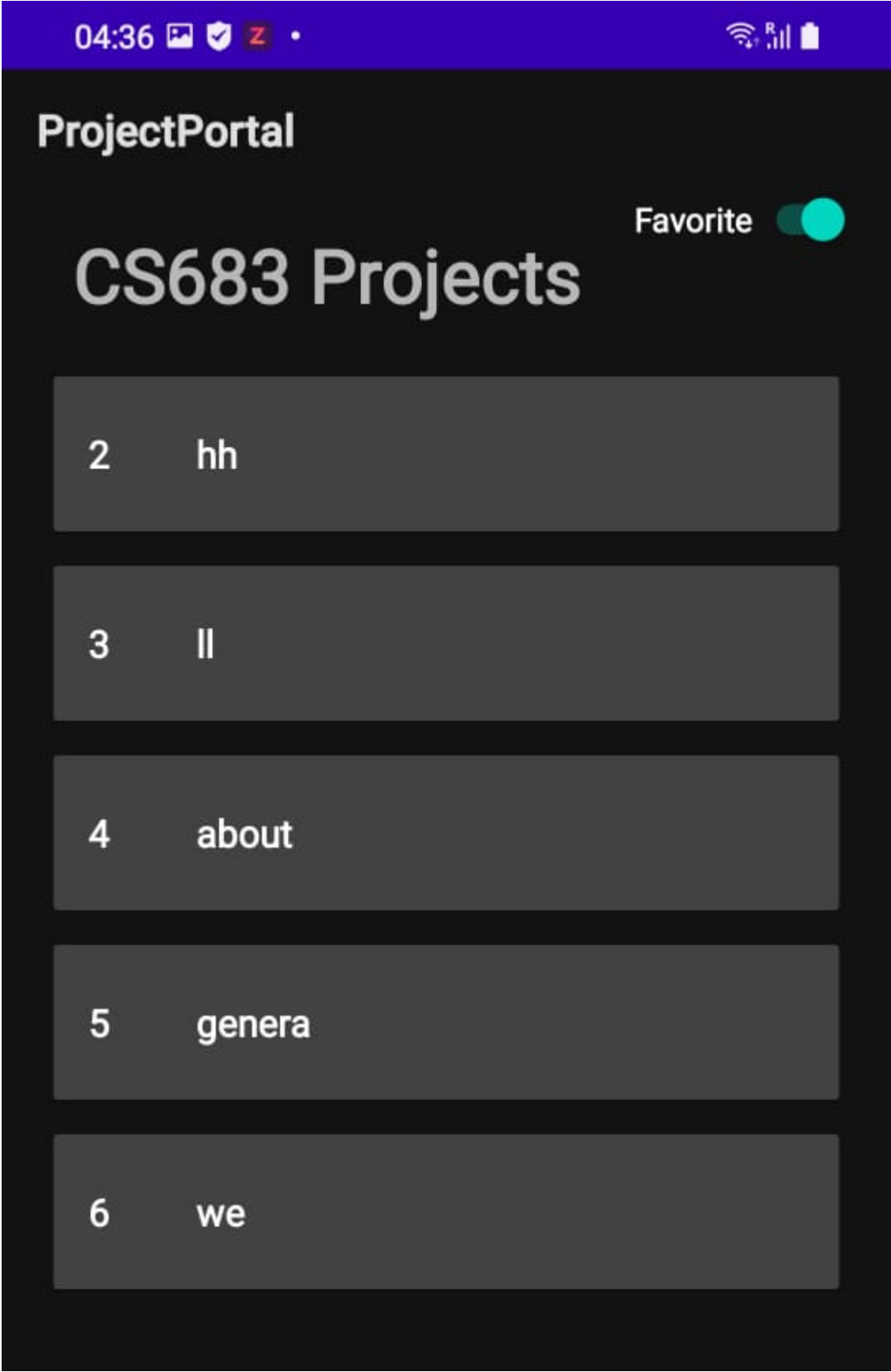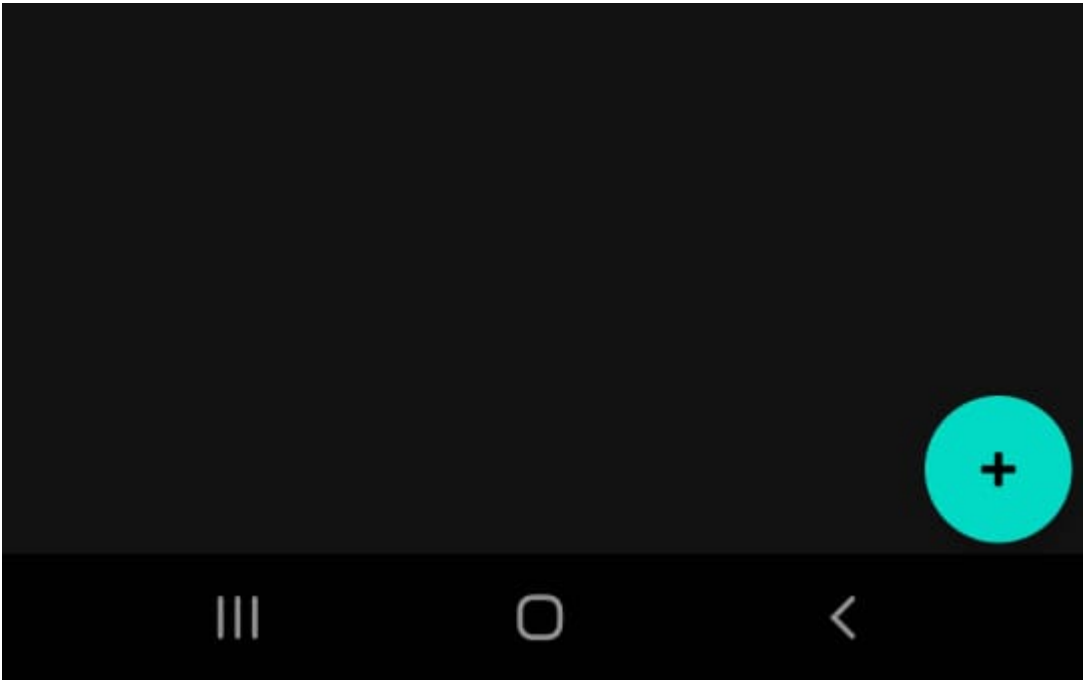
Screenshot 1:

Screenshot 2:

04:38

ProjectPortal

Favorite

CS683 Projects

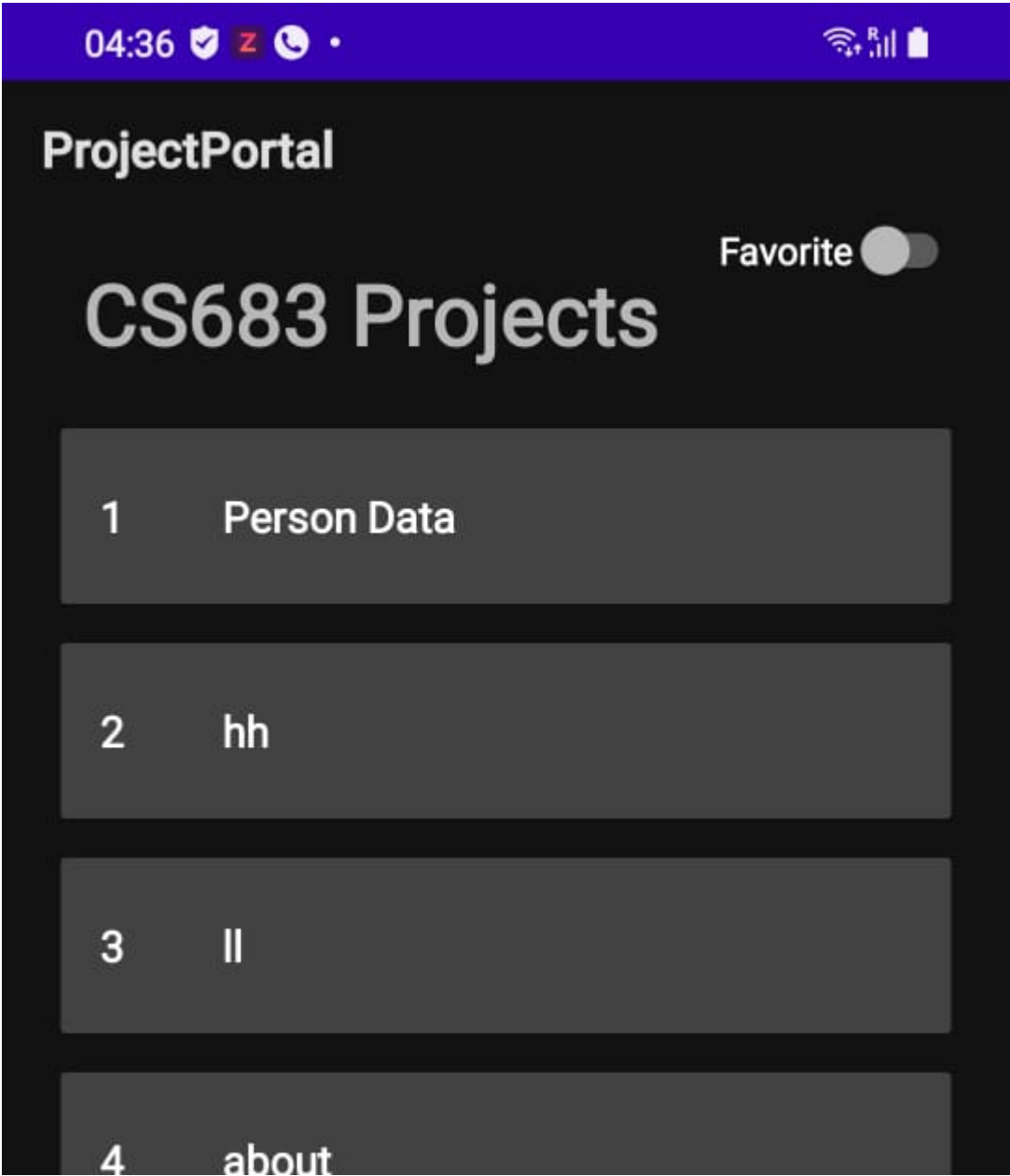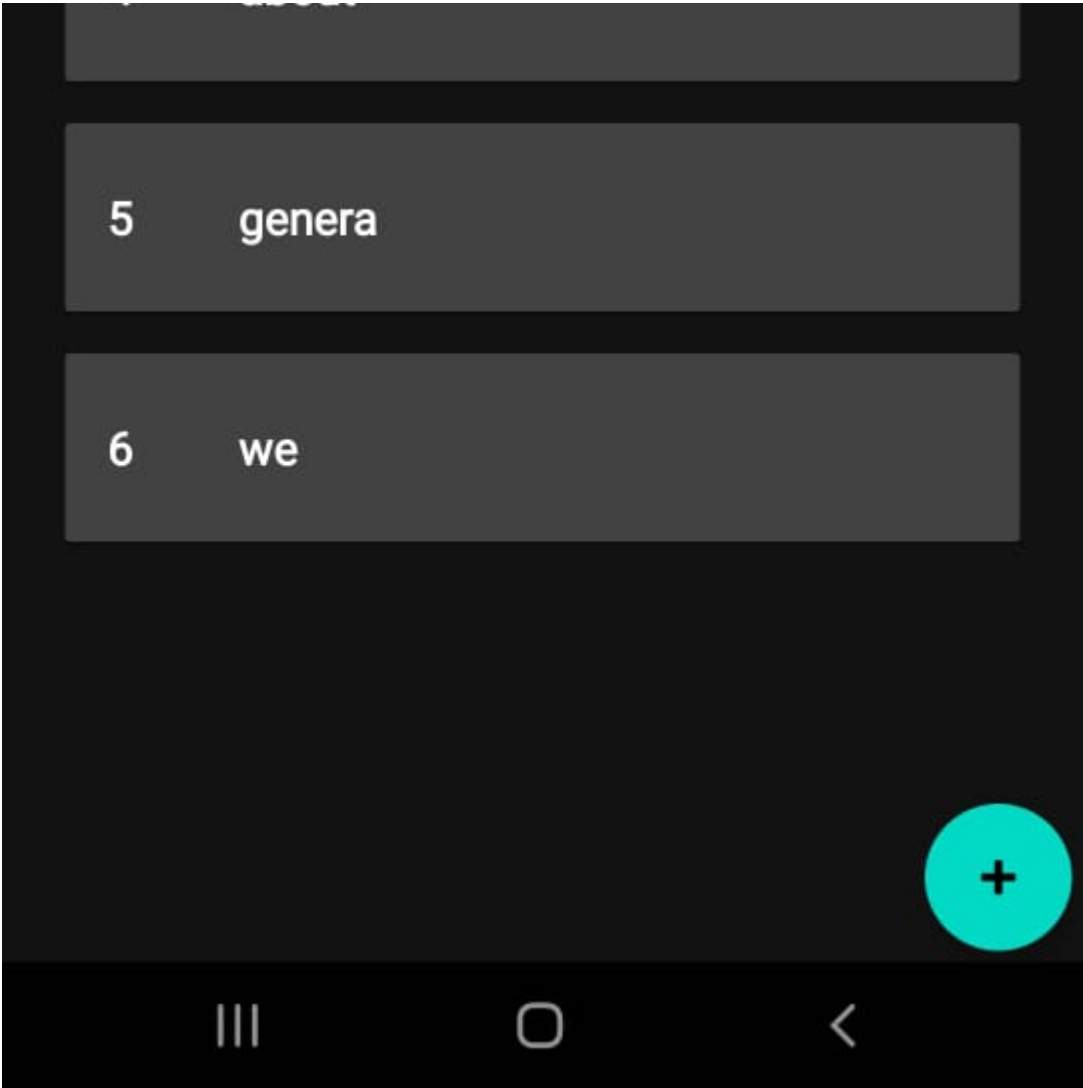|	
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Screenshot 3:

Screenshot 4:

Screenshot 4:
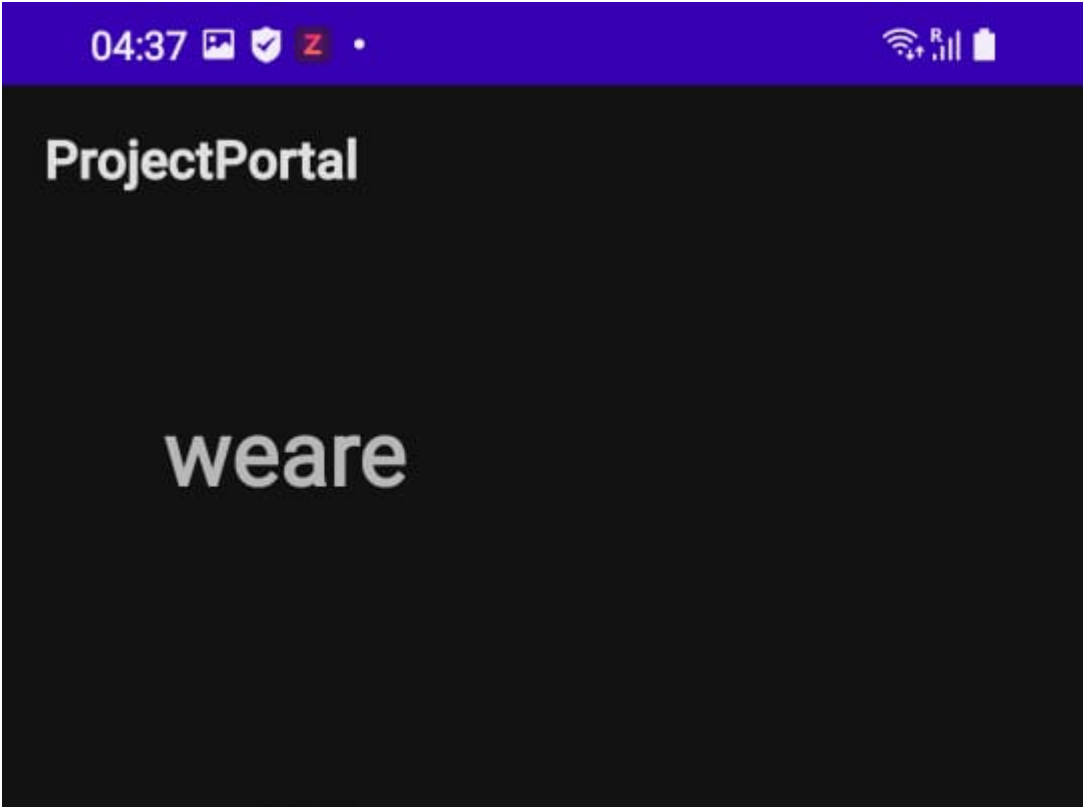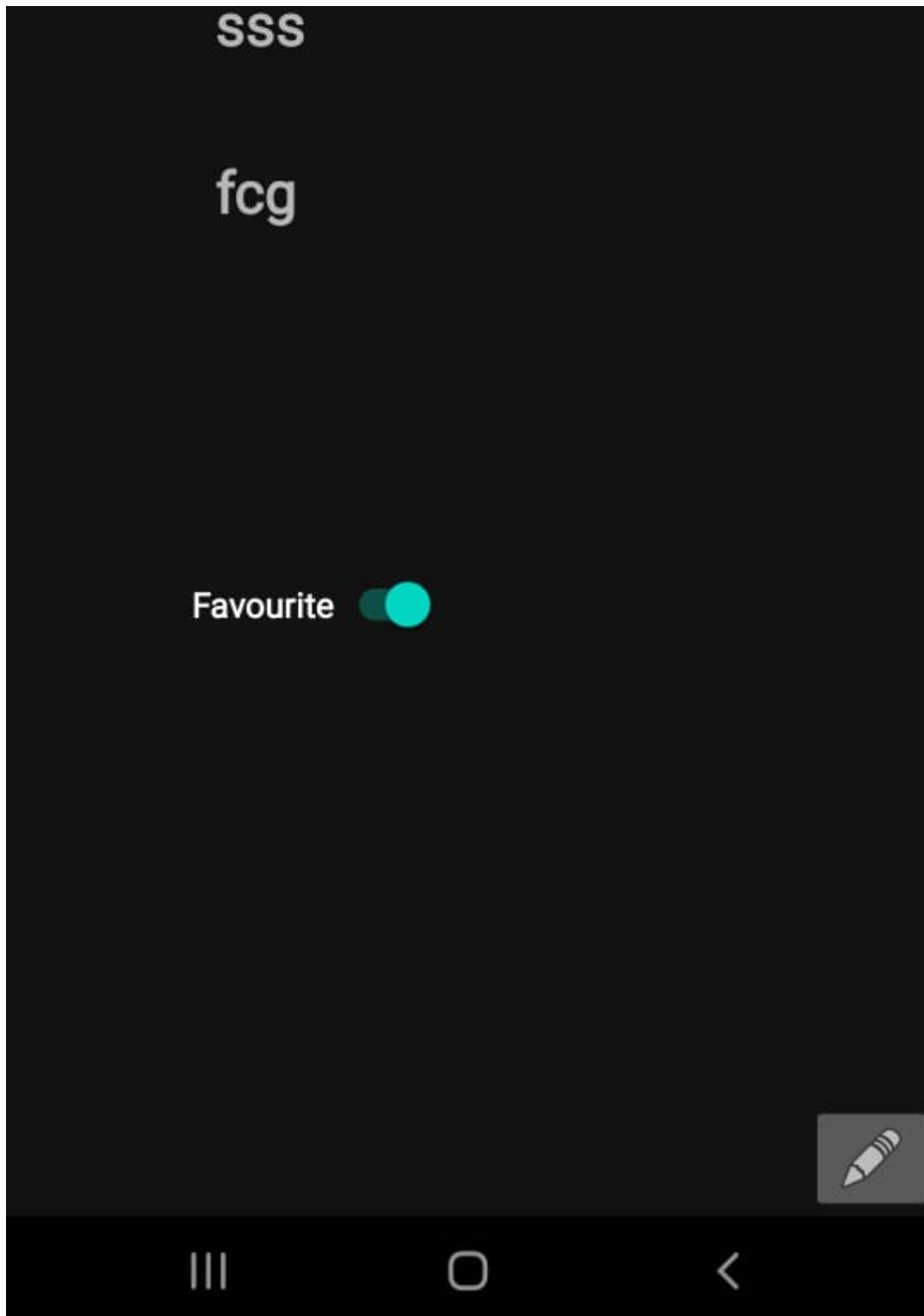
I went through the below useful links as part of the lab 5:

> https://developer.android.com/kotlin/coroutines/coroutines-best-practices

> https://stackoverflow.com/questions/62166878/why-does-viewmodelscope-launch-run-on-the-main-thread-by-default

> https://medium.com/androiddevelopers/coroutines-on-android-part-i-getting-the-background-3e0e54d20bb

> https://stackoverflow.com/questions/66865525/withcontextdispatchers-io-how-to-use-for-room

> https://stackoverflow.com/questions/61255807/coroutine-scope-on-application-class-android