MCDA 5550 – ANDROID PROJECT

DUE DATE: 10 April 2025

Project Description:

This document will walk you through the android work that has to be submitted as part of android project. The goal is to understand and implement what was taught in class and be able to take the feel of being a full stack developer, will help you grow better in job market.

Details:

The hotel reservation system is an online hotel booking system that will provide user an experience to book a hotel for n number guests online. Building it will give you a learning experience of constraint layouts, recycler view, passing data between different fragments, doing service calls using retrofit, parsing data from response and finally displaying a confirmation number on user selected dates. The app will consist of 4 UI screens and 2 API service calls.

Screen 1

The first screen will have user to input in the check in and check out date along with number of guests and a search button. Hitting that search button will make a service call as well make use of intents to pass the dates and guests to next screen. This screen will also show an implement an example to store name and number of guests in shared preferences.

Screen 2

The top of this screen will populate the check-in and check-out date along with guests passed from previous screen making use of intents. This screen will include a recycler view that will populate the details of hotels received from api call and also next button. The hotel details would include hotel name, price and availability. The user can select one of the hotel options from the list and hit next. The hotel choice needs to be passed to next screen using a callback function.

Screen 3

Screen 3 will have the hotel name, check in date, check out dates, price passed from previous screen. Along with that, the user will have to enter name and gender (radio button) for the number of guests that were given in first form. And then they can hit submit button which will be another service call that will return reservation number.

Screen 4

The last screen will show a message "Thank you for your reservation, your reservation number is response from api"

What must be done and submitted as a final project?

1. The complete work done in class; I would love to see the project made from scratch. As I say, use my code when you are stuck but don't clone my repo. Make sure you implement it by yourself.
2. Screen 3 and screen 4 must be implemented by yourself. The screen 3 as we discussed in class will be a recycler view depending on number of guests entered in screen 1. So, if I enter 5 guests in start, I should see 5 views displaying name and gender on screen 3. Besides that, it should also have all the information on that screen hotel name, check in date, check out date. (That can be either passed from fragments or can be picked up from shared preferences, it's your choice)
3. After the user enters all information about guests and hits submit, implement a service call (POST) that sends all details as input and receives confirmation number from service call (structure attached) that will be displayed on screen 4.
4. Screen 3 is attached in rough design in the end of this project assignment.

Function name: reservationConfirmation

input:

```
{ "hotel_name": <string>,
  "checkin": <string>,
  "checkout": <string>,
   "guests_list": [
        { "guest_name" : <string>,
```

"gender": <string>
},
{……},
{……}
]
}

Response:
{
"confirmation_number" : **<string>**
}

Notes or Marking Basis:

1. Code Quality and Reusable Functions
2. Naming Conventions
3. Making use of Constraint Layouts
4. Understanding of Activity and Fragment Lifecycle
5. Proper Use of Recycler View
6. Adding proper comments if needed
7. Clean and warning free formatted code
8. Please don't copy, take help but don't submit the carbon copy of what another student is doing. The same assignments would not be marked.

Bonus Points (Students looking for challenges and maybe want to pursue something more in Android)

1. Making your UI screens look pretty, making use of decorators, colours, images and thinking about actual usability. In short, making it like a hotel reservation system.
2. Taking up a big challenge to implement the project using MVVM (Might be tricky, but a big learning exposure/experience) – I promise extra bonus points for this.

Total Marks Awarded

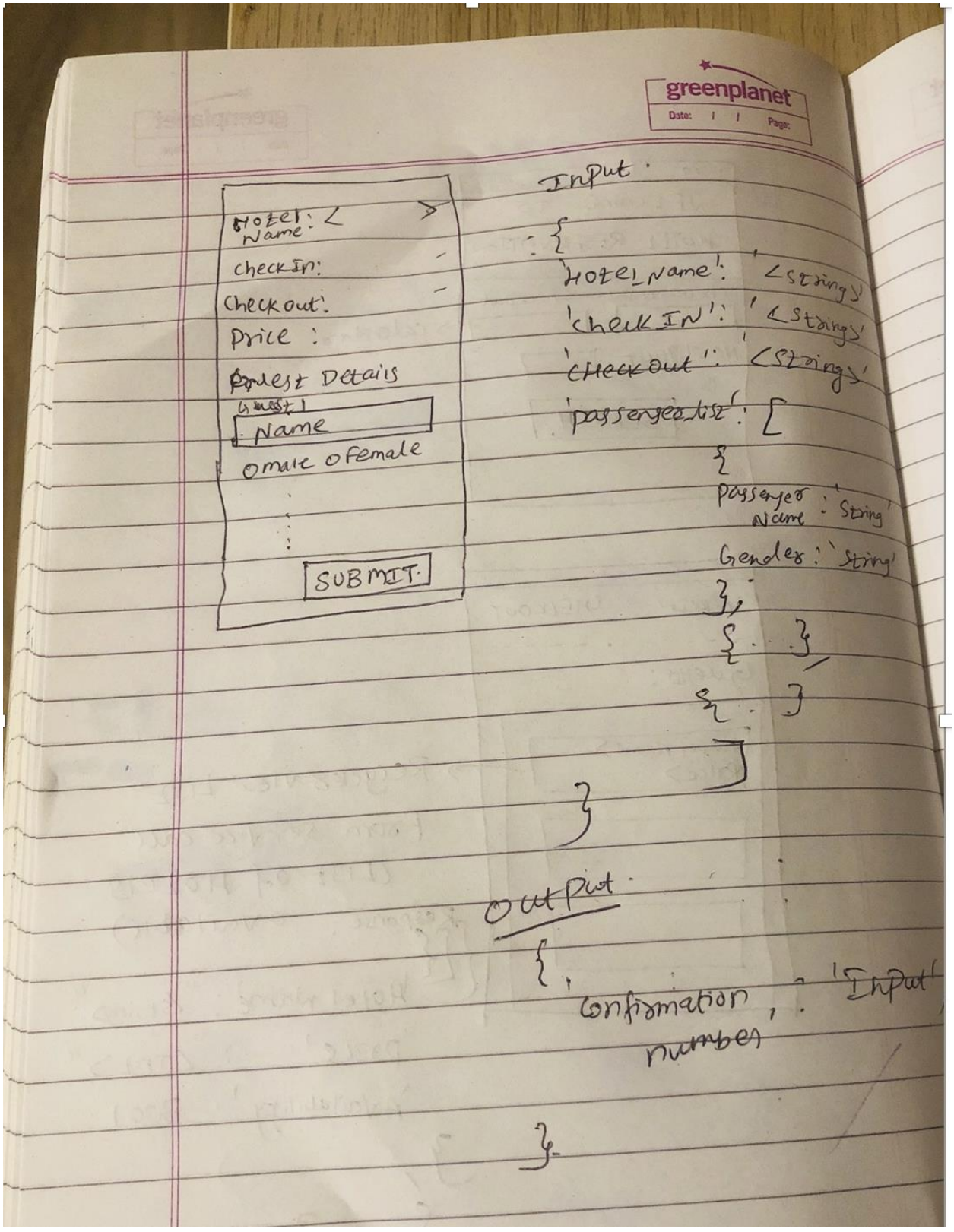
The total work done would be out of 50, for people who have done the entire project without bonus points would be strictly checked on all points of notes and marking basis, the expectation to achieve code quality, naming standards, use of recycler view would be strictly marked but if a student decides to pick up MVVM approach, the marking would be lenient on those ends and could easily score high since you have already studied hard to get MVVM into practical implementation.

But it's a making yourself well versatile and prepared. The only reason I put it in there is to encourage students to learn and apply architecture concepts. In the end, you have good knowledge about MVVM and can talk very confidently in interviews. ☺

Submission:

1. Git must be used to submit all source code, MCDA 5550 & include A#.
2. Add Kanngi and Neil as collaborators on your git repo.
3. Book 1:1 with me (Kanngi) if you need help.

All the Best! ☺
Kanngi Mahajan



(SCREEN 3 ROUGH ATTACHMENT)