Contents

Section 1 Concise table........4

Section 2 Process Develop app 4

I. How the app was developed 4

II. Lessons learned........5

III. What I think went well in application development 6

IV. Improvements to the app........6

Section 3 Evaluation........7

I. Human computer interaction........7

1. Interaction Design Theory 7

2. Design process........11

II. Security........12

III. App's ability to run on multiple screen sizes and how to improve this 13

IV. What changes need to be made for the application(s) to be deployed for direct use........14

Section 4. Screen shot........15

I. Manage trips and add...(Use Java) 15

1. Enter details of trips........15

2. Store, view and delete trip details or reset the database........17

3. Add ... to a trip........21

4. Search........22

II. Add, Delete Trip(Hybrid app with ...) 23

1. View all trip 23

2. Add Trip 24

3. Delete Trip 25

Section 5 Code listing........26

1. File MainActivity.java........26

2. File AddExpense.java 28

3. File DatabaseHelper.java........30

4. File EditTripActivity.java........32

5. File ...Activity.java 34

6. File ...Activity.java........35

7. File ...Activity.java........36

8. File input.t.......36
9. File Trip.t.......37
10. File AddTrip.t.......37
11.File Home.t.......38
12.File store.t.......39

Table of figure

.....

Figure 14: Search trip.......23
Figure 15: List of trips.......24
Figure 16: Add a new trip.......24
Figure 17: Add trip sucessfull.......25
Figure 18: Select trip to delete.......25
Figure 19: Delete Successfull.......26

Section 1 Concise table

Below I will present the implemented and un-implemented features.

Feature	Implementation
a, Enter details of trips	Full Implemented
b, Store, view and delete trip details or reset the database	Full Implemented
c, Add ... to a trip	Full Implemented
d, Search	Full Implemented
e, Upload details to a cloud-based web service	Not Implemented
	Some features
	Some features
	Not Implemented

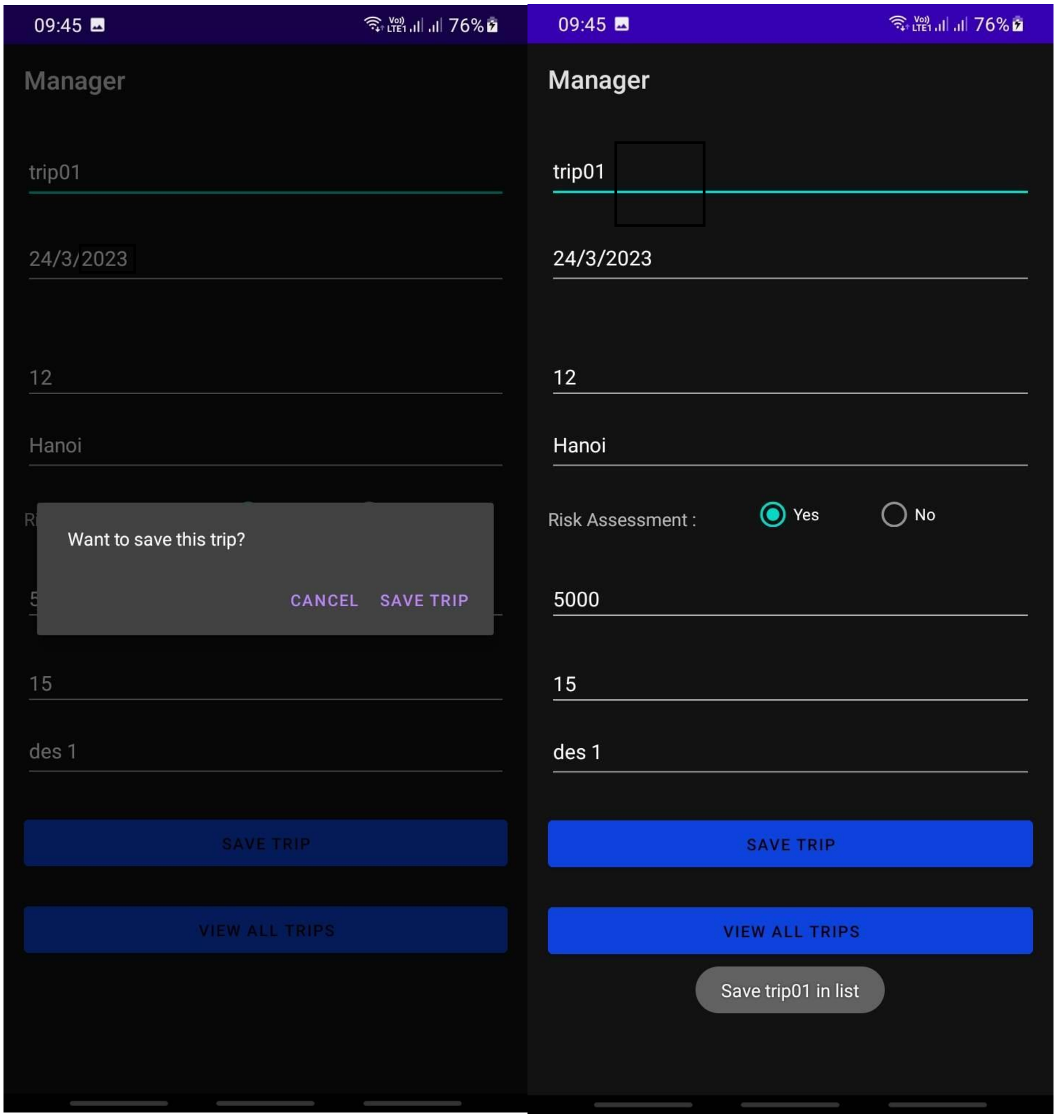
Section 2 Process Develop app

Below I will reflect on how I developed the app as well as the problems in the process and what I experienced after developing the app.

I. How the app was developed

This application has been developed by me by number one important step. Here I will describe the process that I used to develop this application.

First, I will analyze the requirements of the topic. The topic for application development is to design an interface for employees. The app needs to show the travel expenses they have to pay to do their job. For example, an employee who normally works in London might have to go to Plymouth for a meeting. They may claim payment of transportation costs (e.g., subways, trains



trip01

24/3/2023

12

Hanoi

Want to save this trip?

Risk Assessment : ● Yes ○ No

5000

15

des 1

Save trip01 in list

Figure 8: Add trip success

2. Store, view and delete trip details or reset the database

After adding the trip to the trip list. When you click on View trip list, it will show the trip with some key information. Click on that trip to see all its information. Here there are 3 options for the user, first I will choose the Edit trip function to edit that trip information. As well as adding a trip, if you do not enter anything, a message will appear to fill in the blank information. After clicking Edit trip, a window with 2 options will appear, one is Cancel to return to the edit section to change any information, or click Edit to edit that trip. Next is the Delete function, when you want to delete any

```
amountOfExpense.setError("Please enter amount of expense");

..................................................................................................................................
..................................................................................................................................
.................................
```

```
Toast.makeText........................................................
..........................................................................
..........................................................................
..........................................................................
.....................
```

The block of code is an event listener for the buttonSave view. It first calls the insertExpense() method of the databaseHelper object, passing in the ID of the trip, type of expense, amount of expense, date and time of expense, and expense comments as parameters. Then, it sets the timeOfExpense field to the date of the trip (trip_item.getTr_date()), clears the expenseComm field, and displays a short success message using the Toast.makeText() method.

```
databaseHelper.insertExpense( trip_item.getId(),typeOfExpense.getSelectedItem().toString(),

 ..................................................................................................................................
 ..................................................................................................................................
 ..............
```

The block of code is an event listener for the buttonViewExpen view. When the user clicks on the buttonViewExpen view, it creates a new Intent object that specifies the ExpensesListActivity class as the target activity, and passes in the trip_item object as a serializable extra. Then, it starts the ExpensesListActivity activity using the startActivity() method.

```
buttonViewExpen.setOnClickListener(view -> {Intent intentList = new Intent(getApplicationContext()
,.................................................................................................................................................
..................................................................................................................................................
```

- Evaluation, Conclusion
- Google drive video link of java and hybrid application
- Reference list