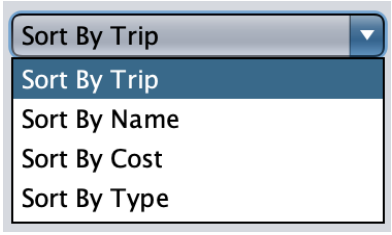
Criterion B: Design

Inputs and Outputs:

Input	Data Type	Example
Name of Trip	String	Trip to Koh Samui
Number of People	Integer	5
Budget	Double	10000.00
Name of Expense	String	Hotel
Type of Expense	String	Accommodation
Cost of Expense	Double	150.00

Output	Data Type	Example
Display Table	ArrayList<Expense> expenses	
The ArrayList<Expense> expenses is sorted accordingly to the sorting method chosen from the combobox	Combobox Selection	

UML Class Diagram:

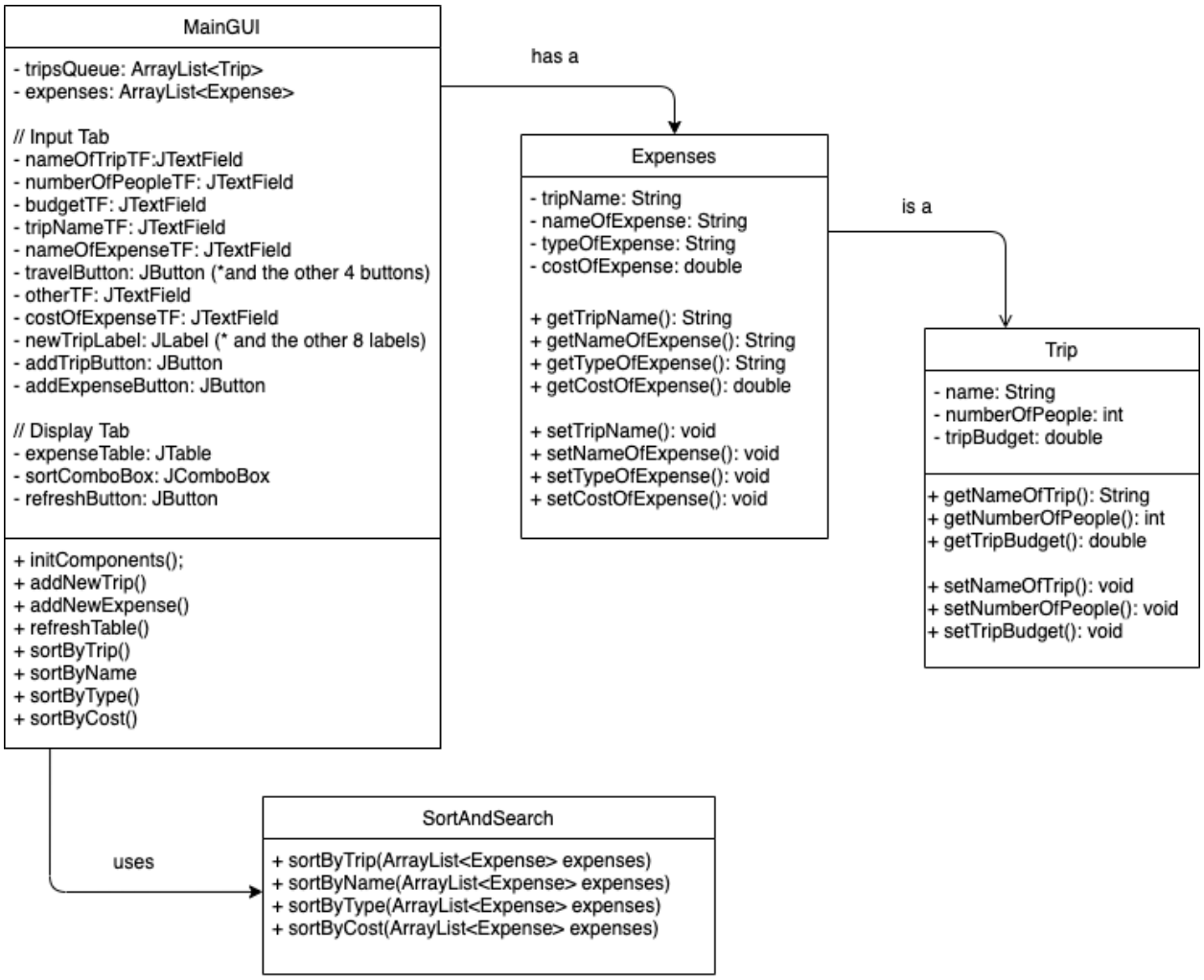


Figure 1: UML Diagram to show the Class Structures of the Database

Flow Charts:

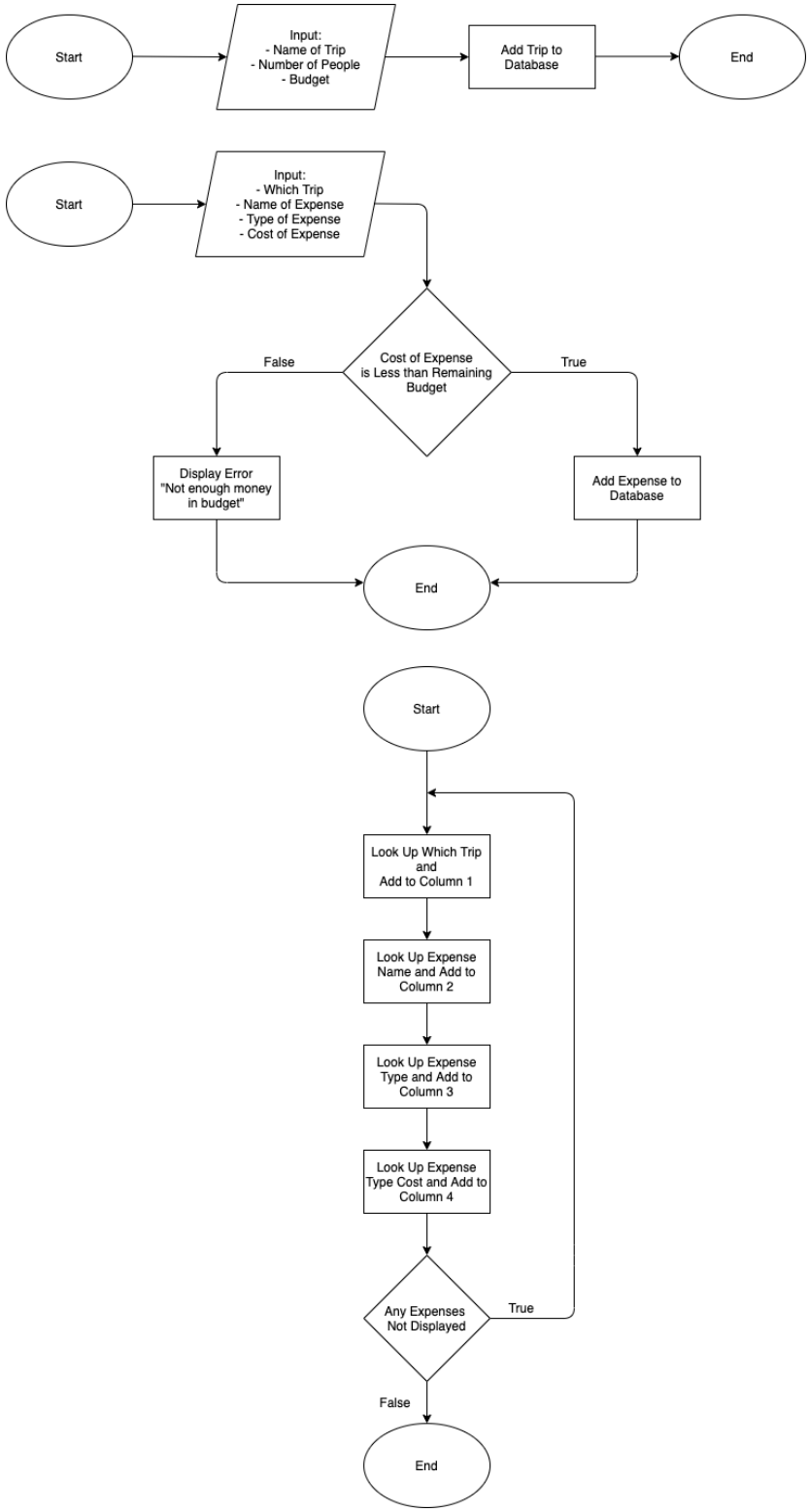


Figure 2: Flowcharts for Inputting Trips, Inputting Expenses, and Displaying Expenses

Final Prototype:

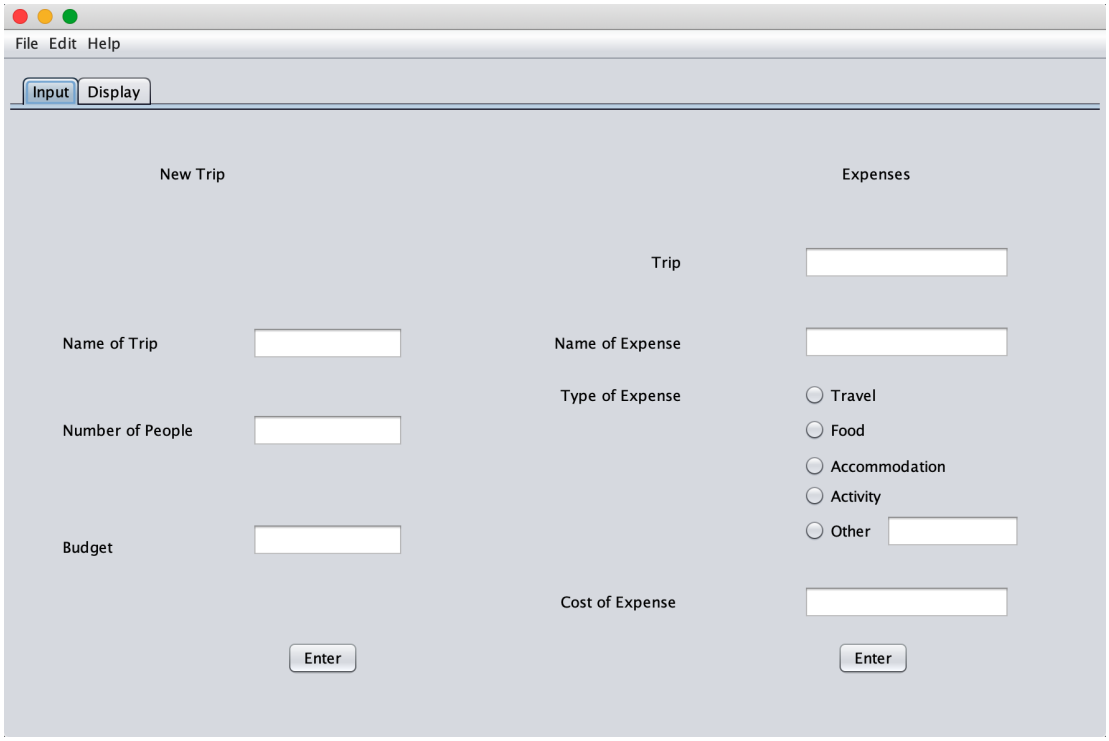


Figure 3: Input Tab for Data Input

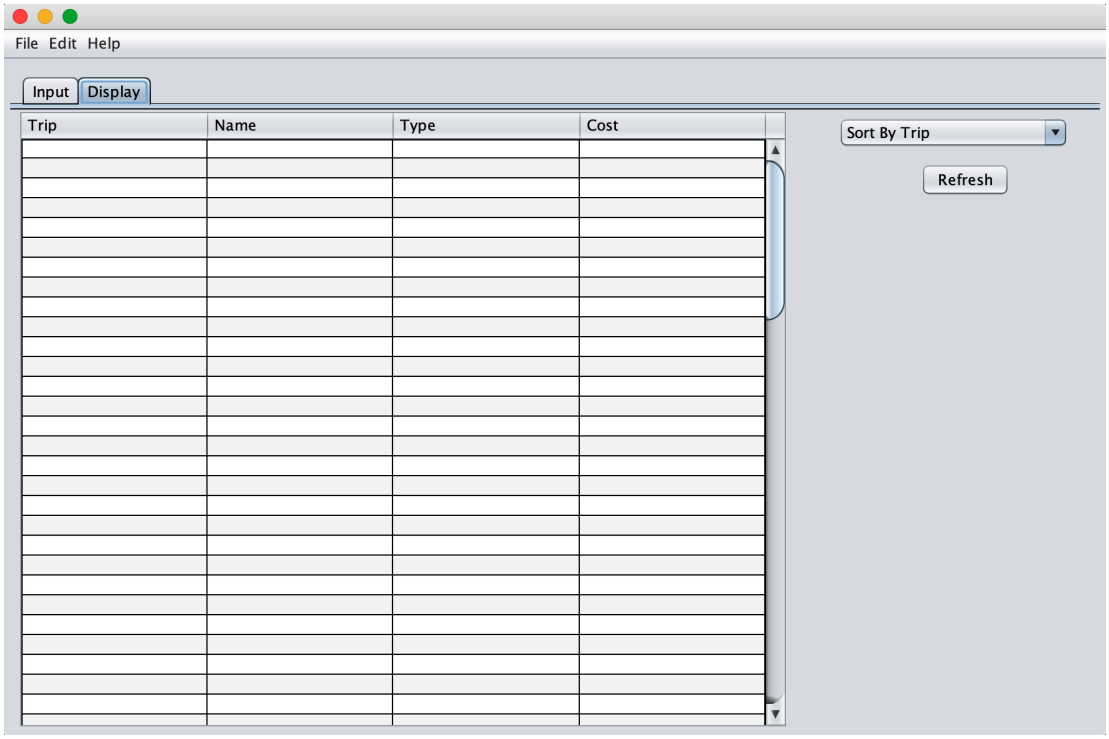


Figure 4: Display Tab to show and sort Expenses

Chronological Development Plan:

1. First Client Interview (1 day)
    a. Discuss features to be added to the database
    b. Discuss client's goal and vision for database
2. Create Initial Prototype (2 days)
3. Second Interview (1 day)
    a. Show and discuss the initial prototype
        i. Fix comments by client
4. Design MainGUI (7 days)
5. Create Template Classes (1 day)
    a. Trip
    b. Expense
6. Create Sorting Classes (1 day)
    a. By Trip
    b. By Name
    c. By Type
    d. By Cost
7. Programming (10 days)
    a. Input Tab
    b. Display Tab
8. Testing Plan (3 days)
    a. Fix bugs
9. Final Client Interview (1 day)
    a. Instruct the client on how to use the program
    b. Receive feedback

Testing Plan:

Input	Example	Errors
Name of Trip	Trip to Koh Samui	30+ characters Empty
Number of People	5	Not an int Empty
Budget	10000.00	Not an int or double Empty
Name of Expense	Hotel	Empty Not an existing trip
Type of Expense	Accommodation	None selected
Cost of Expense	150.00	Not an int or double Empty Greater than remaining budget

Total Word Count: 291