Project Part 7: Final Report

1. Project.

a. Team: 12_HikingCompanions.
b. Team members: Le Qin, Ruiwen Jin, Siqi Feng
c. Project summary: A hiking web application that allows hikers to post hiking plans, find companions with the same hiking routes, and join hiking events to hike together. Users can leave feedback of the routes and making friends with other hikers.
d. Vision: The team has a vision of eliminating the boundary between human and nature, helping developing friendships, and providing a tool for hiking.

2. List the features that were implemented (table with ID and title).

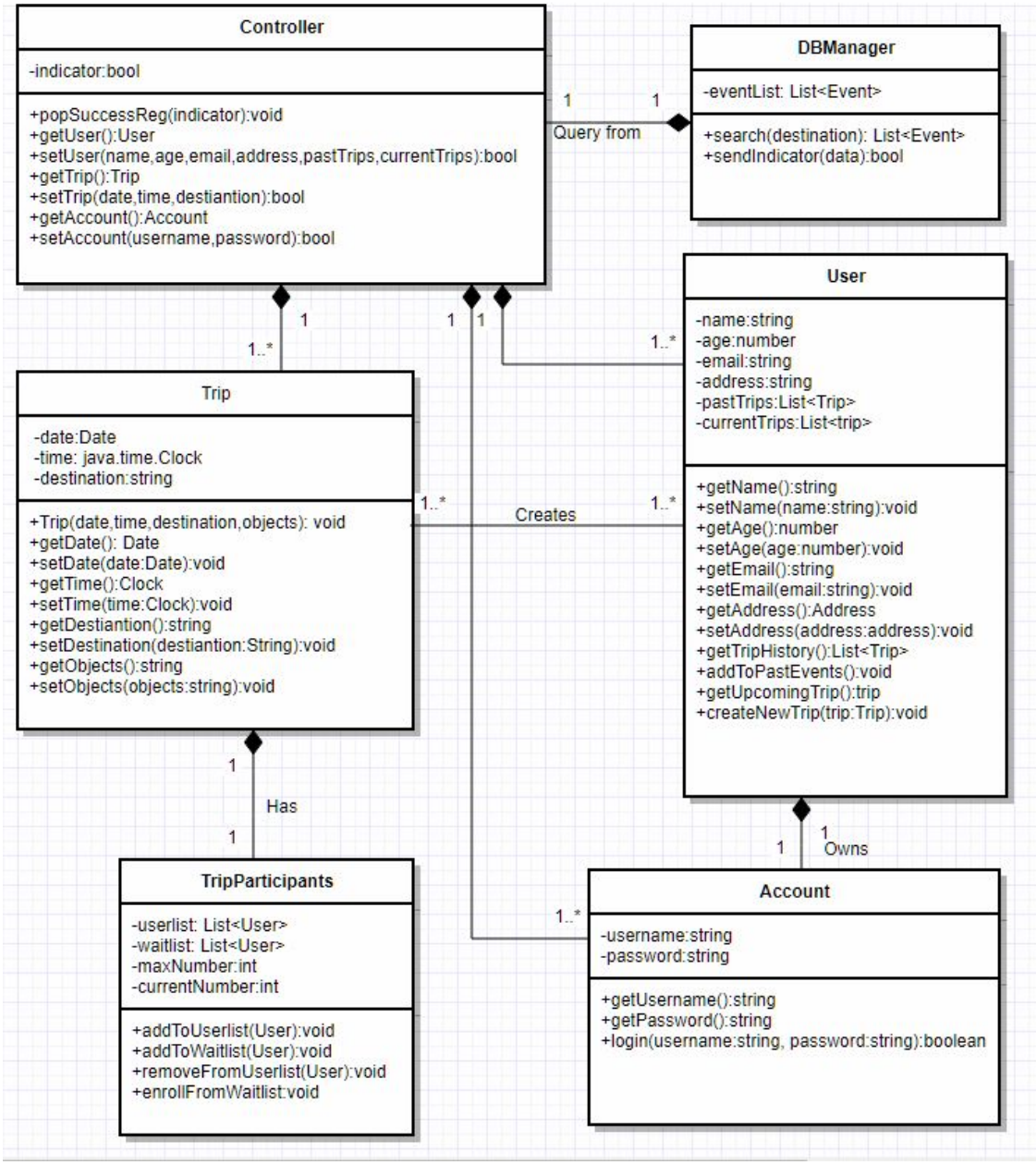
ID:	Description:
US1	As a user, I want to create an account.
US2	As a user, I want to create a hiking event and post it.
US4	As a user, I want to check the specific information such as, date, time, destination, number of people, and how many people are already in, for each event that posted by other users.
US6	As a user, I want to review the event in Profile Page.
US8	As a user, I want to sign up for a hiking event.
US9	As a user, I want to log in to the website application.

3. List the features were not implemented from Part 2 (table with ID and title).

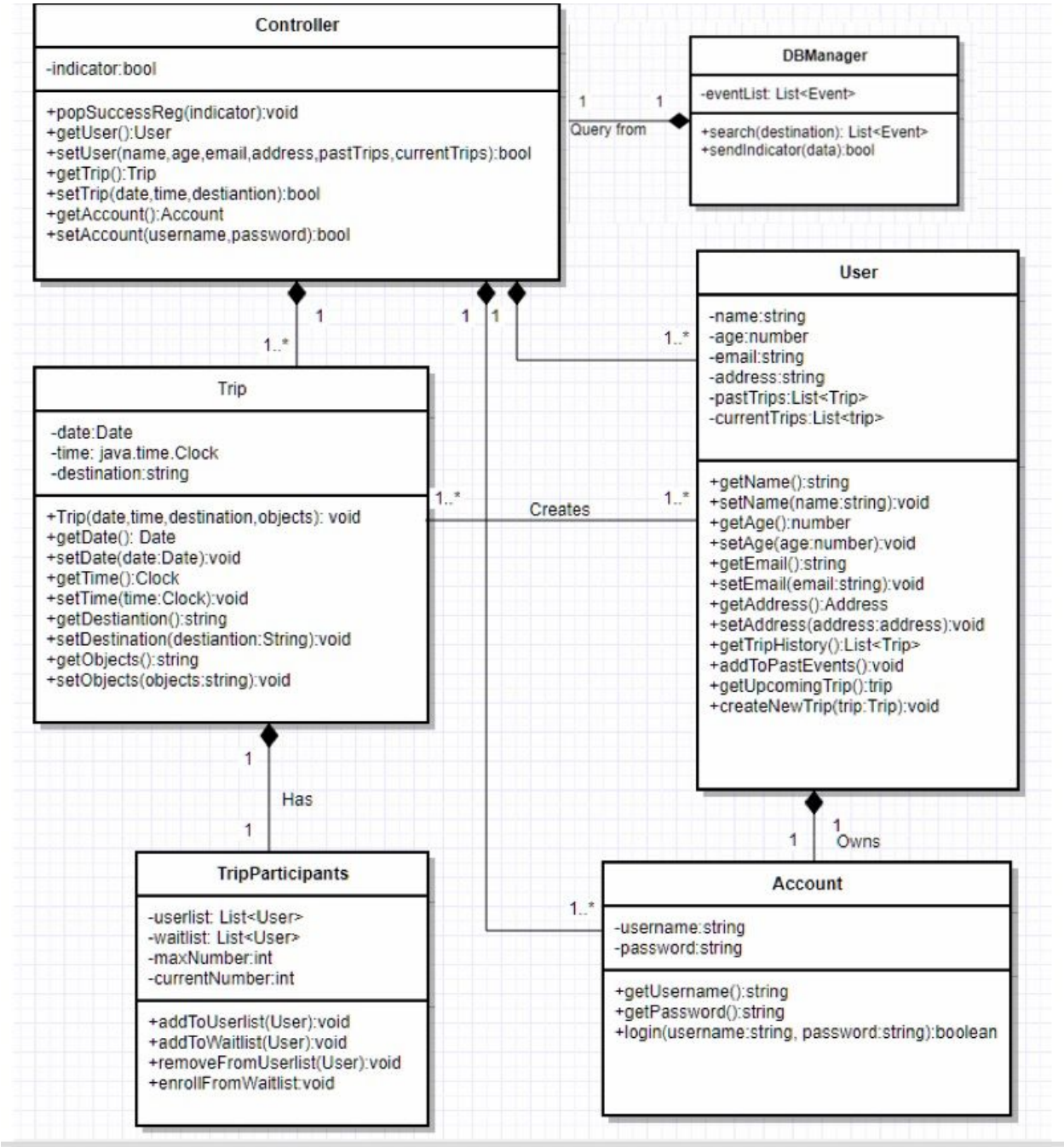
ID:	Description:
US3	As a user, I want to search the destination that I'm interesting in.
US5	As a user, I want to sort the date for all hiking events for the same destination.
US7	As a user, I want to rate the event after hiking.

4. Show your Part 2 class diagram and your final class diagram. What changed? Why? If it did not change much, then discuss how doing the design up front helped in the development.

Previous class diagram:



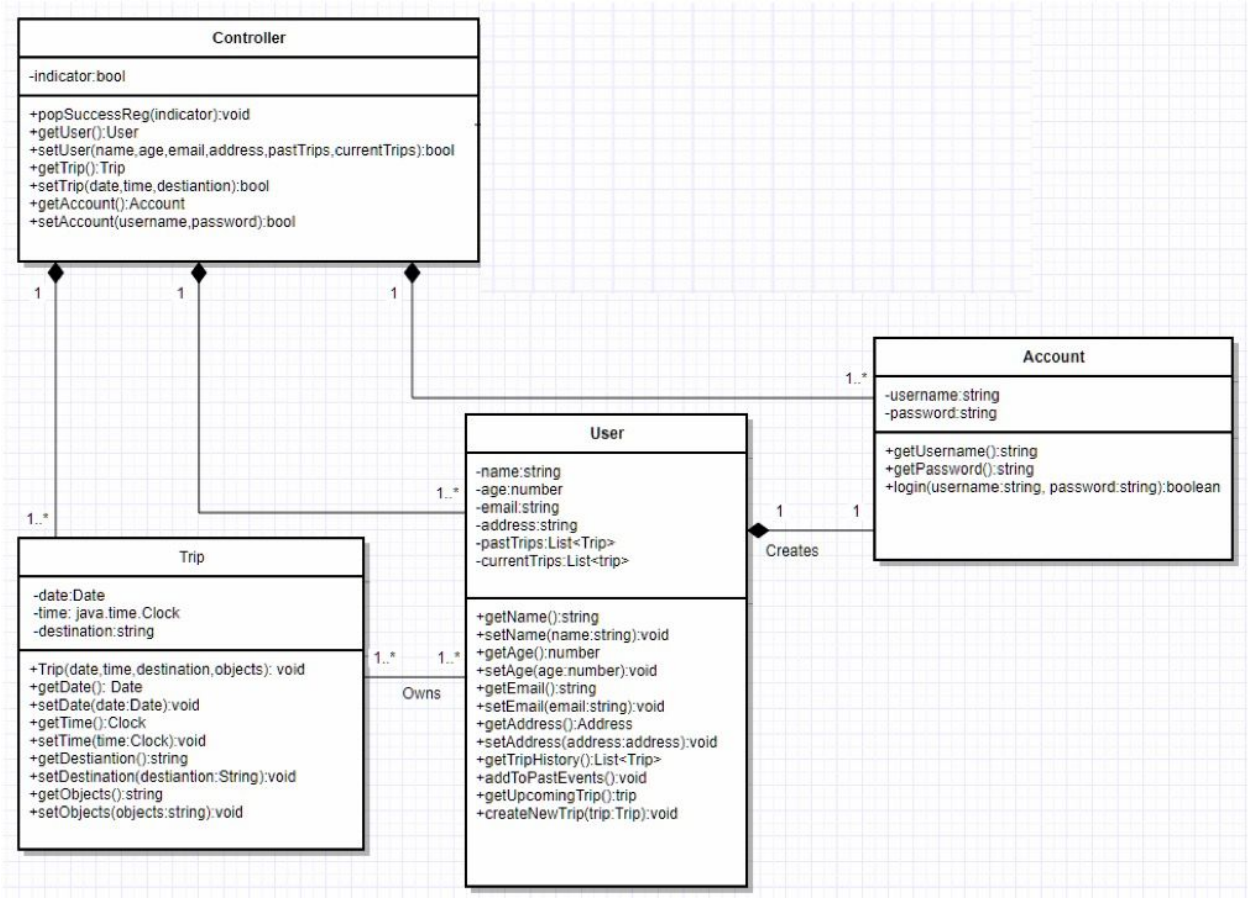
Final class diagram:



What changed and why:

- EventParticipants and DBManager are singleton design pattern, which indicates that only one instance for each of the class exists at a time.
- The original design has some subclasses that are not in the correct classes, and some subclasses were needed as we implementing. Also we have to fit the classes as expected for our framework and interface.
- Since there was not any major changes on the diagram, to reflect in the process of implementation, it was quite straight forward.

5. Show the classes from your class diagram that implement each design pattern (each design pattern as a separate image in the .PDF).
Template Design Pattern:



6. What have you learned about the process of analysis and design now that you have stepped through the process to create, design and implement a system?

- Before this class, the main focus on the design is functionalities. Design was never a very heavily focused component of a project. But from this class, we learnt that a good and well developed design is an essential and significant part of a project. It can help you to save a lot of time to determine tasks and planning in the future.
- With designing a system prior to implementation would be very helpful for you to understand what the system will actually do. However, no design is perfect to fit throughout the process. You would need to be prepared to change it along the progress of the project.
- Learning frameworks and tools that would be used in the project before actually implementing the project is essential and very beneficial in the long term. With the knowledge ahead, better decisions would be made for sure.
- Design patterns are very helpful to improve object-oriented design and coding efficiency. The better you can utilize them, the easier when you actually implement the functions.
- It is very important to design a project with future expansion possibilities. It was not well done in the early design for our project, so in the later iterations, we found out some of the planned functions would require a relatively huge amount of work to accomplish.