CIS 4250 – Software Design V
Instructor: Prof. S. Scott
Individual Accountability Report (IAR) Template

Note. Refer to the Project Manual for detailed instructions for IAR submissions.

Individual Accountability Report (IAR) Template
The following questions MUST be included and answered completely for each submitted IAR.

IAR must be submitted one of the following file formats: text or PDF.

Q1. Student Name: Adhyayan Bhandari

Q2. Student ID: 1135943

Q3. Associated Team Deliverable: Sprint 3

Q4. Team #: 6 (Section 2)

Q5. What were the main technical or methodological knowledge, skills and/or abilities (KSAs) that were required to complete this team deliverable? What prior courses or experiences (e.g. co-op, group project, etc.) from your Software Engineering degree did you draw on for these KSAs? (bulleted list is preferred):

- Two Factor Authentication fundamentals: No experience

- React/Javascript: Knowledge from CIS*2750 as well as my WT5.

Q6. What was your existing level of experience with these topics/skills before your team began working on this deliverable? (1-2 sentences):

- I had extensive knowledge with React.

- I had working knowledge with native Javascript.

- I didn't have enough knowledge about Two Factor authentication.

Q7. Comment on your individual KSAs learning during this deliverable, and what additional learning may be needed to understand or be more competent with these topics / tasks in the future?

- I improved on my knowledge of Two Factor Authentication by looking at online resources. Especially those pertaining to Google's Two Factor Auth. This lead me to ultimately implementing email two factor authentication.

- Needed to understand core Javascript related concepts since I had to create the notifications which requires knowledge of the react-hot-toast library and how to display certain notification styles appropriately.

Q8. What specific contributions did you make to this team deliverable? This should include technical or project management contributions.

- Two Factor Authentication
  - Updated user model to store one time passcode field
  - Edited the login API endpoint to generate and store an OTP for a user upon login. Also created the functionality to send the otp to the email address of the user.
    - Researched libraries to create encrypted passcodes and how to store in MongoDB. Also researched best way to send emails via node.js.
  - Created a new two factor endpoint to validate an otp for a given user
  - Created a new page for the user to enter an otp
- Friends Notifications
  - Updated user model to store one time passcode field
  - Created two new react hooks to add and delete friend notifications.
  - Added front end UI elements to display the friend notifications, and connect it to the back end controllers.
- Assisted with final merging of all commits into sprint 3 branch and resolving merge conflicts

Q9. With whom did you collaborate for any of the above contributions (be specific – saying "all team members" is not sufficient. State which parts you worked on with whom)?

- Collaborated with the Naza, Ike, Jake, Dawoud on resolving merge conflicts.

- Remaining tasks that I completed were done independently.

Q10. Comment on how well you managed your time over the time period allocated in the Course timetable to this team deliverable (i.e. the time between the prior team deliverable to this team deliverable).

There was good time management across this sprint. I completed two relatively large features and felt that I had adequate time to complete and test both of them. The two factor auth required some additional research about the necessary libraries as well. At the end of the sprint however, we were rushed to get the final changes into the sprint3 branch since we were running into merge conflicts. Time management when compared to the last deliverable was positive as well.