Richard Mingione

CSC 545

**Final Project Idea**

I’d like to design a gym check-in system with the goal of helping fitness centers track and analyze member activity with a flexible, event-driven setup. The application focuses on the simplest component of gym operations – membership. Most gyms have a member checking in and out, and it is this data that I would like to use to generate useful workout insights. The system would be designed for gym admins, who can track things like peak hours and member streaks; gym members, who can see their own stats, like total time spent at the gym and their longest streak; and data analysts, who can use the data to improve business operations. The build would likely be a command line system for the requirements of this project.

**Simplified Project structure**

**Tasks**

* check\_in (member\_id)
* check\_out (member\_id)

**Tables**

* members (member\_id, name, createdAt)
* check\_ins (id, member\_id, check\_in\_time, check\_out\_time)

**Events**

* member\_checked\_in
* member\_checked\_out