**Time Clock Application**

The goal of this application is to record and report employee time. The application will have two interfaces. The main interface will be used by employees to clock in and out, go on break, and receive management messages. The administrative interface will be used to monitor employee status, create messages, perform CRUD (create, read, update, delete) actions on companies, departments, holidays, time segments, breaks, segment types, pay types, and pay rules. Also, the data will be able to be exported to payroll software.

**Time Clock Database**

1. The application will keep track of each company’s name and id. The id is unique.
2. Each department is described by the name, location, number, and if lunch breaks are paid. The department number is unique.
3. A location is described by the id, name, address, city, state, zip, country and the pay information id. The id is unique.
4. The pay information table stores all of the pay rules. The pay information is described by the id,
5. The pay type is described by an id, a description, the weekly max, the daily max, and the pay info id.
6. A break is described by the start time, the end time, and the segment id.
7. A segment type is described by an id, description, and a pay type.
8. A segment is described by an employee id, id, pay period, the in and out times, and the department.
9. A timecard represents a collection of segments for a given pay period and is described by the employee, the pay period, total normal time, total overtime, total holiday time, total sick time, and total vacation time.
10. An employee is described by first and last name, middle initial, manager id, pin, id, and employment status.
11. Messages are described by a message id and the message text.