# **Functional Requirements**

## Administrators

Req0100: Administrators can login into the application with their user ID and password.

Req0101: Successful login of the administrator should default their view to the administrator home page.

Req0102: Administrators can create and delete tutor groups.

Req0103: Administrators can send invites to tutors so they can activate create and/or activate account as a tutor.

Req0104: Administrators can set account expirations dates for accounts.

Req0105: Administrators can lock and unlock accounts.

Req0106: Administrators can view account activity logs (login, logout, check-in, check-out, statistics)

Req0107: Administrators can view tutor ratings.

Req0108: Administrators can view tutor notes of students.

## Tutors

Req0200: Tutors can login into the application with their user ID and password.

Req0201: Successful login of the tutor should default their view to the tutor home page.

Req0202: Tutors can choose from list of departments they are an associated tutor of.

Req0203: Tutors can clock in and clock out of their tutoring workday.

Req0204: Tutors can generate a QR code to use for check-in purposes for tutoring sessions.

Req0205: Tutors can check-in a student into a tutoring session using a QR code.

Req0206: Tutors can check-in a student into a tutoring session by the student’s login ID.

Req0207: Tutors can view and change their account information.

Req0208: Tutors can view their tutor activity logs (login, logout, clock-in, clock-out, check-in, check-out)

Req0209: Tutors can view statistics on their tutoring of specific courses.

Req0210: Tutors can view statistics on their tutoring to specific students.

Req0211: Tutors can view statistics on their tutoring of courses within a specific course year (Freshman, Sophomore, Junior, Senior).

Req0212: Tutors can send students messages regarding their tutoring session.

Req0213: Tutors can make notes about specific students which are viewable only to other tutors and administrators.

## Students

Req0300: Students can login into the application with their user ID and password

Req0301: Successful login of the student should default their view to the student home page.

Req0302: Students must choose the tutor group they want to use

Req0303: Students can check-in to tutoring session by scanning the tutor’s QR code.

Req0304: Students can check-in to tutoring sessions by lookup of tutor and entering the course. Tutor receives confirmation message to approve

Req0305: Students can check-in to tutoring sessions by entering their login ID on the tutor’s interface.

Req0306: Students can view and change their account information.

Req0307: Students can view their activity logs (login, logout, check-in, check-out)

Req0308: Students can view statistics on the tutors they had tutoring sessions with.

Req0309: Students can view statistics on how often they go to tutors for each course.

Req0310: Students can view statistics on the courses they needed tutoring for.

Req0311: Students can send tutors messages and can view tutor’s hours.

Req0312: Students can view tutor ratings and reviews.

Req0313: Students can rate tutor performance and leave review.

# **Non-Functional Requirements**

## Hardware Requirements

Req0400: The system requires the mobile application and web application is utilized from a device connected to the Internet.

Req0401: The system requires a web server to process the web application.

Req0402: The system requires a database server to allow users and applications to centrally access the data.

Req0403: The system should be operational on different screen sizes and internet connection speed.

Req0404: The system should make use of the camera on the android device. The camera should be used for QR code scanning.

## Software Requirements

Req0500: The Android application must support Android devices running on OS versions 4.0.3 or higher.

Req0501: The Android application will run quarterly maintenance cycles to provide updates for the end users.

Req0502: The web application should support all commonly used web browsers (Google Chrome, Mozilla FireFox, etc)

## Security Requirements

Req0600: Students can only view his/her own account and activity information and not that of any other student, tutor or administrator.

Req0601: Tutors can only view his/her own account and activity information and not that of other tutors or administrators.

Req0602: Administrators can only view his/her own account and not that of other administrators.

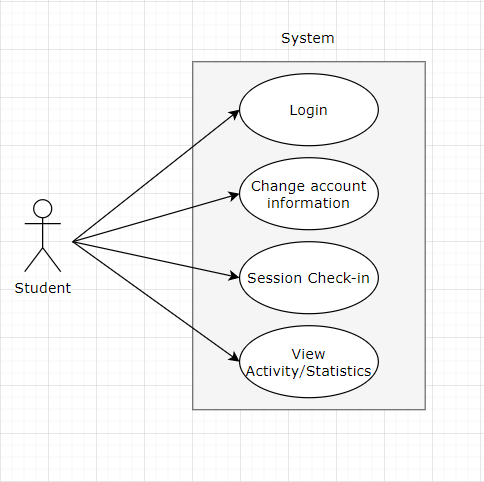
Req0603: The system must store passwords in bcrypt hashes and not reveal passwords to any users.

## Availability Requirements

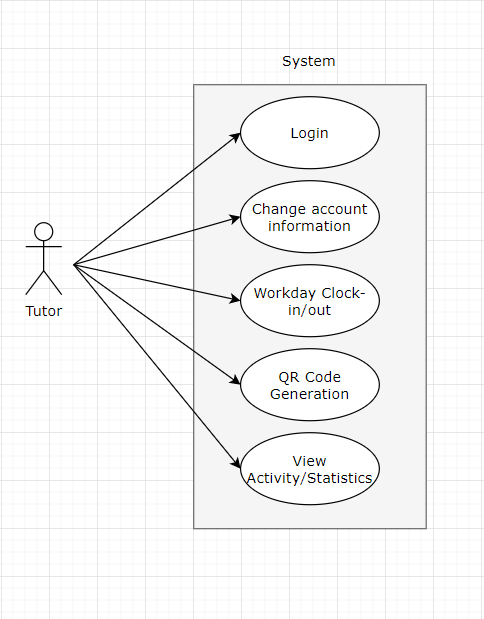
Req0700: The system should always be available during business hours EST. Maintenance times where the application needs to be offline should be done outside of these times.

# **UML Diagrams**

## UML – Student



## UML – Tutor



## UML – Administrators

