Brian Steuerman **Individual Assignment Proposal**
VM: sysadmin@csc415-server22.hpc.tcnj.edu https://github.com/bsteuerman832/Assignment-3

Social issue: Struggle to find parking in public lots where one may not know the number of open spots

Project Title: Virtual “Parking Meter”

I chose *Option 2* because I wanted to make a project that was able to be used in many different environments to help people arrive to things time and worry less about parking. This program hopes to alleviate the stress of finding a parking lot with open spots by allowing certain lots to adopt this system.

I will be implementing a mobile application using the language Java and Android Studio. This project is intended to allow users to register cars using personal info through this app and then “check-out” a numbered parking spot. Users can also check the availability of these specifically chosen lots so they do not waste time looking in a full lot for a spot.

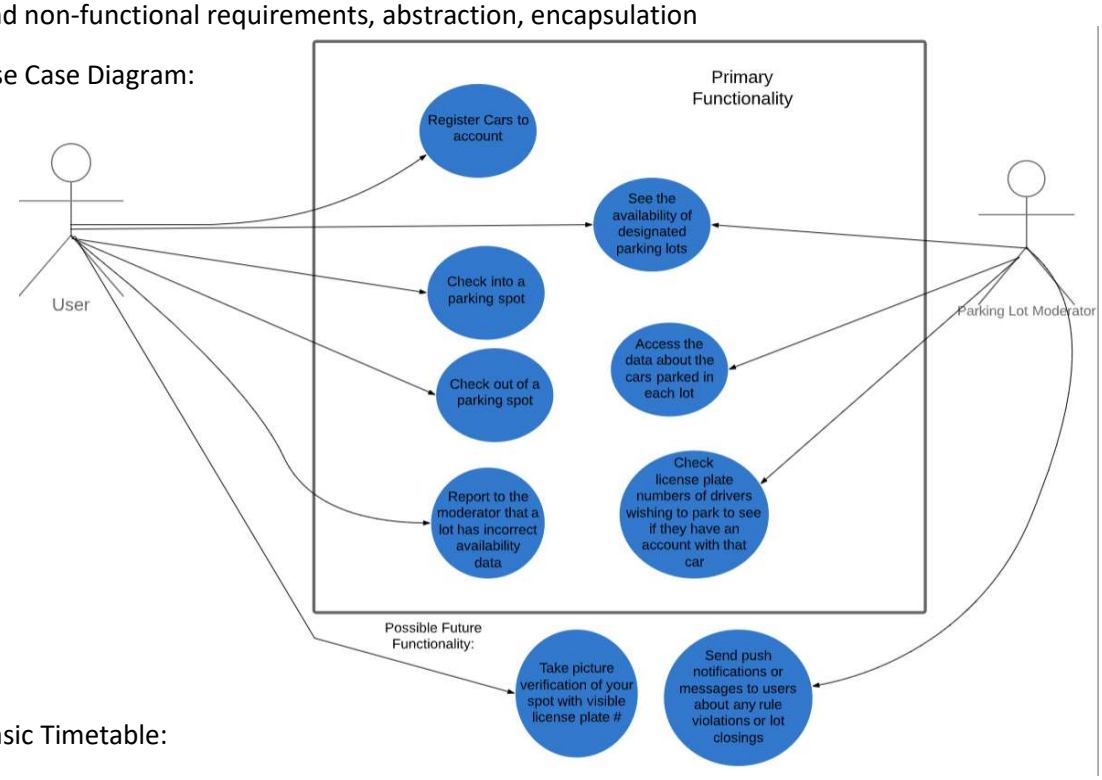
This project is innovative because it is designed to be an easy, effective way to allow a person to see which parking lots are open for them to park in. Many college students and employees always seem to struggle to find a parking spot at the worst times, and I am hoping this would alleviate the problem.

Algorithms: Searches, adding to lists, deleting from lists, database organization, user interaction

Structures: HashMap, ArrayList, Array, List, class, methods, etc.

New software engineering concepts to learn or reinforce: Use-case diagrams, class structures and hierarchies, functional and non-functional requirements, abstraction, encapsulation

Use Case Diagram:



Basic Timetable:

- October: Learn how to use Android studio and re-learn some of the concepts from Java, start planning
- November: Start initial coding and implementing the primary functionality
- December: Finishing touches and final testing of the application