

# Student Athlete Schedule Software Design Document

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**INTRODUCTION:**

Student athletes need to be able to manage time appropriately and efficiently when in school. Not only do the students need to focus on both studies and athletics, but overall health as well. Most schedules only have specifically scheduled activities such as classes, practices, games, and meetings. This project will be much more beneficial for the student athlete because it will be centering a schedule on mental and physical health.

For physical health, the scheduler will require the user to add sleep schedules for each night and add when the user plans on doing recovery from the sport (suggested at least once per week). As for mental health, the scheduler will include extra time blocks for things that aren't typically as planned out to reduce stress.

The goal of this project is not just to create a basic schedule for student athletes, but to also better mental and physical health.

**PROBLEM DESCRIPTION:**

This project will let student athletes create schedules specific to the user. It will first allow the user to add the most basic scheduling activities such as classes, practices, games, team bonding, sleep, meetings, and club times to the schedule. Although sleep is not one of the typical activities one would add to a schedule, it needs to be done in the first section due to the fact it should not be considered a "free time" activity.

After the user adds these inputs, the scheduler will display the schedule and then determine when there is free time. This will give the user an option to decide when it is appropriate to do extra activities that aren't typically as planned out but are especially recommended for student athletes, such as: meal prepping (or any dedicated time to eat), homework/studying, sport recovery, and social activities. The user will be able to add each of those or select "other" to if wanting to add things to the free time and will display the user's final schedule afterwards. This scheduler will only work one week at a time and will need new entries every Sunday if the student athlete would like to continue making a schedule.

**PROBLEM SOLUTION:**

A class titled "SchedulerApp" will consist of methods that ask the user information such as their name, schedule, additional free time activities, etc. It will include a main method which creates a constructor and other methods that call getters from the other classes to give values to the appropriate attributes. These attributes will be within classes called "StudentAthlete" and "ROTCAthlete". The "StudentAthlete" class will add information to a text file about the student athlete if the user is not also in ROTC. If the user is in ROTC, the information will be kept in a text

file that is also accessed through “StudentAthlete” and will have more information accessed through the “ROTCathlete” class, which will then be added to the same file, as “ROTCathlete” is a child class to “StudentAthlete”. A class named “Scheduler” will include methods that allow the user to add or remove any types of activities that are scheduled. After this class is done being altered, the “FreeTime” class, accessed from both “StudentAlthete” and “ROTCathlete”, will be used to add any type of information regarding what the user would like to do in existing free time. This would include methods like addFreeTimes or displayFreeTimes.

