

# SDSU Class Management System

By: Sophie Krivonosov  
Quincy Kapsner  
Rage Dizon

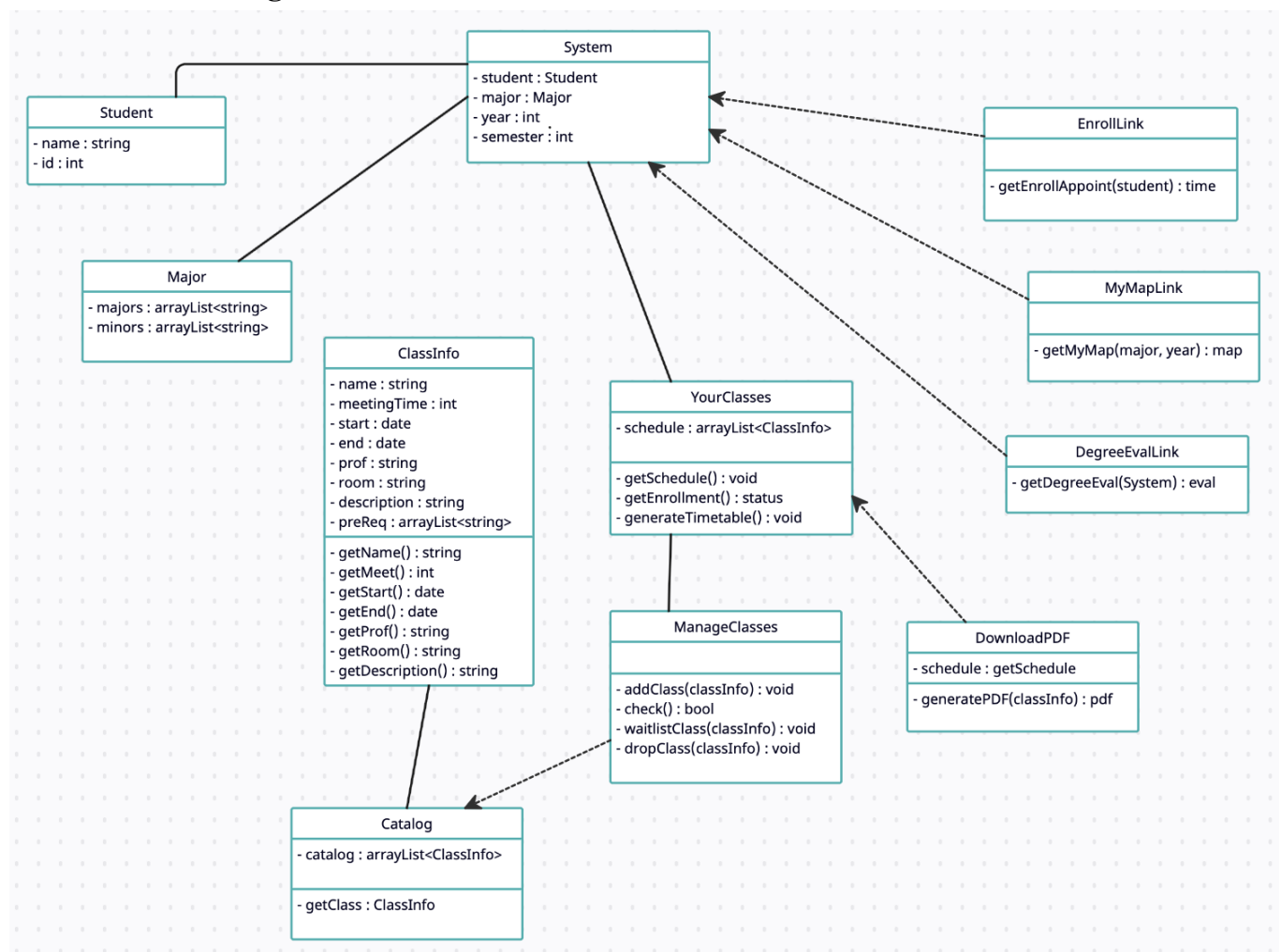
March 6, 2023

# 1 System Description

The SDSU Class Management System is an online software designed to make managing and scheduling classes simpler and more efficient, modeled after the current mySDSU software. It will highlight multiple different features including a list of one's classes in normal and timetable form, a way to add, drop, and waitlist classes, and links to various platforms. These platforms include myMap and degree evaluations in order for students to be able to access all important information from one server. Additionally, students will be able to view enrollment appointments and download printable versions of their schedules.

## 2 UML

### 2.1 UML Class Diagram



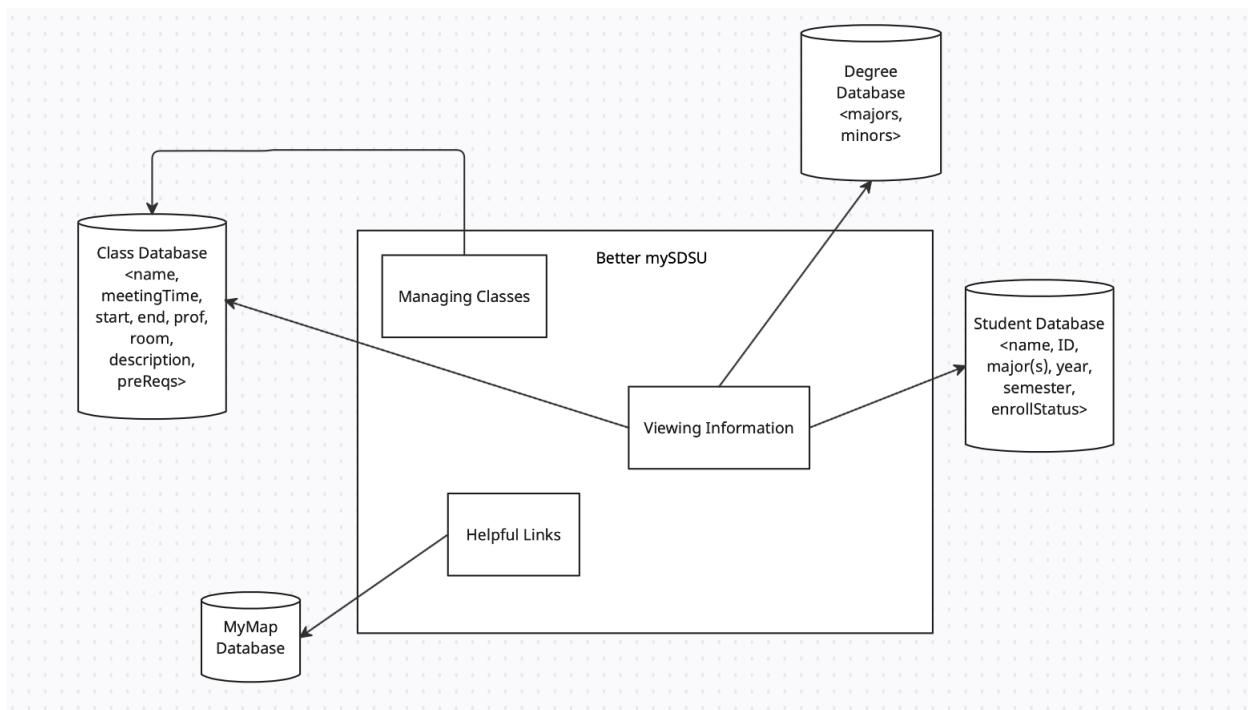
## 2.2 UML Class Descriptions

- Classes
  - System: Overarching parent class that holds on the global variables
  - Student: Abstraction class holding student's name and ID
  - Major: Abstraction class holding a student's collection of majors and minors
  - ClassInfo: Class representation of all the characteristics of a course in the catalog
  - Catalog: A collection class that holds all the courses sorted by semester
  - ManageClasses: Management class that includes all the functions that students use to interact with the catalog of courses
  - YourClasses: A display class that provides images for schedules in different formats
  - DownloadPDF: Simple class that allows students to download pdf version of their course schedule
  - DegreeEvalLink: Link class that leads to the external tool for evaluating their own degree
  - MyMapLink: Link class that leads to the external tool for mapping out their courses based on major and year
  - EnrollLink: Link class that leads to external tool for checking when a student's enrollment appointment is
- Attributes
  - name: string containing the name
  - id : integer holding the student's id
  - Student: abstraction class object holding the name and id
  - meetingTime: custom variable holding a date and time for a class's meeting
  - start: date variable for when the course starts
  - end: date variable for when the course ends
  - prof: string containing the professor of the course's name
  - room: string containing the room name and number
  - description: cosmetic string containing an overview of the course
  - preReq: a list of strings that show which courses needed to be taken before the viewed course
  - major: class instance that contains a student's majors and minors
  - majors: list containing majors
  - minors: list containing minors
  - catalog: list of all possible classes
  - schedule: list containing all instances of ClassInfo to display courses being taken
  - year: integer that displays the year of the student
  - semester: string that indicates the seasonal semester they are currently on
- Operations
  - getName(): get method for name

- getMeet(): get method for meetingTime
- getStart(): get method for start
- getEnd(): get method for end
- getProf(): get method for prof
- getRoom(): get method for room
- getDesc(): get method for desc
- getEnrollAppoint(): get method for the enrollment appointment time
- getMyMap(): get method to get the external tool MyMap
- getDegreeEval(): get method to get the external tool degree eval
- getClass(ClassInfo): get method for a class
- addClass(classInfo): get method to add a class
- check(): convenience method to help addClass, in checking if a class can be added
- dropClass(ClassInfo): use method for dropping a class
- waitlist(classInfo): use method for waitlisting a class
- getSchedule(): get method to display a schedule
- getEnrollment(): get method to get the status of enrollment
- generateTimetable(): use method to display a timetable view
- generatePDF(): use method for getting a PDF of their schedule

## 3 Software Architecture

### 3.1 SWA Diagram



### **3.2 SWA Description**

The updated SDSU Class Management System accesses several databases. The classes that control the management of the user's schedule access the SDSU catalog of classes database. The classes that control displaying the user's information, including their student information, schedule, and degree evaluation, access the student information database, SDSU catalog of classes database and the SDSU degrees database respectively. Finally, the software accesses the MyMap database in order to provide a helpful link to the user's MyMap.

## **4 Other Information**

### **List of Tasks**

- Making and formatting document - Sophie - March 6
- Writing system description - Sophie - March 6
- Drawing UML Class Diagram - All of us - March 7
- Writing UML Class Diagram description - Rage - March 8
- Drawing SWA Diagram - All of us - March 7
- Writing SWA Diagram description - Quincy - March 8