

Florida International University
School of Computing and Information Sciences

Software Engineering Focus

Final Deliverable

Project Title:

MorningBytes

Team Members:

Capstone I: Simarjeet Chhabra, Carlos Cordero, Adam Samson, Karanveer Sandhu, Eric Tu

Capstone II: Angel Saldivia, William Smith

Senior Project: Jeffrey Cuello, Sergio Pantoja

Product Owner: Dr. Giri Narasimhan

Instructor: Dr. Masoud Sadjadi

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Abstract

This document presents the information necessary to gain a good understanding of the MorningBytes project. The project aims to create an environment in which students can practice questions provided by their professors and mentors on a daily basis. MorningBytes is a web application that can keep students engaged and prepared for their classes.

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INTRODUCTION

MorningBytes was a concept introduced to us by Dr. Giri proposed the idea of having students be engaged with their classes in a way that isn't huge tests or long homework assignments. The bigger picture was having students take bite sized chunks of the information presented in class on a daily basis which would keep students prepared over the course of the semester. Having a system that allows students to answer one or two questions on a daily basis keeps students challenged on a level that accumulates over the time of the class.

MorningBytes is a web application that allows professors to input a set of questions based on what they would like their students to be quizzed on a daily basis. Students are given a random question on a daily basis to keep them engaged and prepared for the class.

Current System

This project was built from the ground up as there was no previous version of this system. A similar would include Quizlet in which users can go in and take mock tests using the flash cards provided by users who input their own study guides.

Purpose of New System

The purpose of the new system is to create a platform in which professors can upload questions pertaining to the topic they are teaching and have their students be assessed on a daily basis. This system would allow students to have their knowledge on the class refreshed on a more consistent manner. This is not a substitute for studying for a test but rather a compliment to the learning environment.

USER STORIES

Implemented User Stories

- User Story 1 -
 - Description - As a Capstone 2 student, I want to find python resources so that Capstone 1 students are able to learn and understand future code.
- User Story 2
 - Description - As a Capstone I & II student, I want to learn the fundamentals of Python so that I can work on the project using Python.
- User Story 3
 - Description - As a developer I would like to find and share tools for sending emails in python
- User Story 4
 - Description - As a developer, I want to plan a database so that I can effectively store the data that will be needed for the project.
- User Story 5
 - Description - As a developer, I want to create a sample database to store sample data, so I can recognize how the data is structured.
- User Story 6
 - Description - As a developer, I want to make a repository for all of our code on GitHub, so that other developers on the project can make/propose changes to the code whenever.
- User Story 7
 - Description: As a developer I want to meet with my coworkers to discuss our ideas for the main logic so that we can all be on the same page and work on the project
- User Story 8
 - Description: As a user, I want an app that will be able to email me a reminder at a specific time so that I can do my morning bytes
- User Story 9
 - Description: As a Capstone 1 Developer I would like to get experience and knowledge on working with virtual environments pertaining to python
- User Story 10
 - Description: As a Capstone 1 member I would like to learn how to utilize Github to help create and use branches with the team.
- User Story 11
 - Description: As a developer, I want to research flask resources so that I can develop a web app using Python
- User Story 12
 - Description: As a developer, I want to research Django resources so that I can develop a web app using Python
- User Story 13
 - Description: As a developer, I want to review the shared resources so that I can develop a web app using Python
- User Story 14
 - Description - As a developer, I want to design a database so that information is efficiently stored for queries.

- User Story 15
 - Description - As a developer, I wanted to create a database so that information such as data and user information is efficiently stored.
- User Story 16
 - Description - As a Capstone I student, I want to create sample information to put into the database to test during development.
- User Story 17
 - Description - As a user, I want to receive emails so that I remember to complete my Morning Bytes.
- User Story 18
 - Description - As a user, I want to access a web app so that I can complete my morning bytes online.
- User Story 19
 - Description - As a developer, I want to create basic templates to use as base for the development of other pages of the web app
- User Story 20
 - Description - As a developer, I would like to create the main branch for the starting structure of the flask app so that we can have an organized development process
- User Story 21
 - Description: As a developer, I want to implement a login page for students for the flask web application so that students can see only their own quiz questions.
- User Story 22
 - Description: As a user, I want to have an area to list all my classes so that I can easily access them once I log in.
- User Story 23
 - Description: As a developer, I want to create an XML template so that we can have a structure of what the site would look like.
- User Story 24
 - Description: As a user, I want to have a home page for the web application so that I can have a default page to go to.
- User Story 25
 - Description: As a developer, I want to implement code that allows access to a database in the Flask Application so that I can get access to quiz questions and input answers for those questions.
- User Story 26 - Fix sign up and login buttons showing while logged in
 - Description - As a user, I want the sign up buttons and login buttons to not show up while I am logged in so that I won't be confused about whether I am signed in or not.
- User Story 27 - Add a signout button
 - Description - As a user, I want a sign out button so that I can remove access to my Morning Bytes profile/account for my device so no other user can access it.
- User Story 28 - Disable login and signup URLs when logged in
 - Description - As a user, I want the login and signup URLs to redirect me to my profile page so that I won't access the login/signup page while I am being logged in.
- User Story 29 - Edit Draft templates
 - Description - As a developer, I want to create templates for parts of the project so that it can be displayed to the user in a simple format.
- User Story 30 -

- Description - As a user, I want to have meaningful questions so that I can dig deep into the course and understand the material.
- User Story 31
 - Description: As a programmer, I would like to convert the dashboard and website designs into HTML for front end use so that there is a nice display to welcome users.
- User Story 32
 - Description: As a developer, I want to create a "create class" page into HTML so that professors have a way to create their classes in the application
- User Story 33
 - Description - As a professor, I want to be able to create a class so that I can add the classes I am teaching for the semester
- User Story 34
 - Description - As a student, I want to be able to get classes so that I can find the classes I need to join
- User Story 35
 - Description - As a student, I want to join a class so that I can join my classes I am taking
- User Story 36
 - Description - As a developer, I want to create a page for joining and creating classes so that users can join or create a class for easy access
- User Story 37
 - Description - As a developer, I would like to add arrays of assignments to the class roster db to call on the front end
- User Story 38
 - Description - As a developer I would like to add arrays of assignments to the classes db to call on the front end
- User Story 39 -
 - Description - As a developer I would like to fix the template for displaying the questions page so it doesn't refresh the students answers.
- User Story 40
 - Description - As a developer I would like to create a model for the questionbank database collection.
- User Story 41 -
 - Description - As a developer, I would like to fix the email sender script for reminding students.
- User Story 42 -
 - Description - As a developer I would like to add modal functionality to the dashboard for students and teachers
- User Story 43 -
 - Description - As a developer I would like to add jquery to update the class form without having the user refresh the page.
- User Story 44 -
 - Description - As a user, I want to have a nicer looking page so that I can work with my classes easier.
- User Story 45 -
 - Description - As a developer, I want to add jquery to update the professor's dashboard so that the user doesn't need to refresh the page.
- User Story 46 -

- Description - As a user, I want to be able to delete classes so that I can organize my dashboard
- User Story 47 -
 - Description - As a developer, I want to add more XML sample data so that I can do more tests with the app
- User Story 48 -
 - Description - As a developer, I want to clean up the email presentation so that users can view the email announcement clearly.
- User Story 49 -
 - Description - As a user, I want to change dates for MorningBytes so that I can determine when MorningBytes show up for all students.
- User Story 50
 - Description - As a developer, I would like to clean up the front end of the website to make it more presentable to the users of the website

Pending User Stories

- User Story 51
 - Description - As a developer, I would like to implement a universal time zone for saving web app and database information.
- User Story 52
 - Description - As a professor, I would like to be able to delete question banks that i uploaded before

PROJECT PLAN

This section describes the planning that went into the realization of this project. This project incorporated the agile development techniques and as such required the sprints to be planned. These sprint plannings are detailed in the section. This section also describes the components, both software and hardware, chosen for this project.

Hardware and Software Resources

Software

MongoDB - Backend

Pycharm - Development environment

Visual Studio Code - Development environment

Flask - Python web framework

Github - Code repository

Python - Main logic programming language

Bootstrap - Web development framework for clean website

Trello - User story collaboration tool

Sprints Plan

Attendees of meetings:

Product Owners:

- Giri Narasimhan

Developers:

- Capstone 2
 - Angel Saldivia (AS)
 - William Smith (WS)
- Senior Project
 - Jeffrey Cuello (JC)
 - Sergio Pantoja (SP)
- Capstone 1
 - Simarjeet Chhabra (SC)
 - Carlos Cordero (CC)
 - Adam Sanson (AD)
 - Karanveer Sandhu (KS)
 - Eric Tu (ET)

Sprint 1

Date: 5/17/21

Start Time: 6:00 p.m

End Time: 6:30 p.m

Sprint User Stories:

- User Story 1 -
 - Description - As a Capstone 2 student, I want to find python resources so that Capstone 1 students are able to learn and understand future code.
 - Assigned to - AS, JC, SP, WS
- User Story 2
 - Description - As a Capstone I & II student, I want to learn the fundamentals of Python so that I can work on the project using Python.
 - Assigned to - AD, CC, ET, KS, SC
- User Story 3
 - Description - As a developer I would like to find and share tools for sending emails in python
 - Assigned to - AS, JC, SP, WS
- User Story 4
 - Description - As a developer, I want to plan a database so that I can effectively store the data that will be needed for the project.
 - Assigned to - AS, KS, SP, WS
- User Story 5
 - Description - As a developer, I want to create a sample database to store sample data, so I can recognize how the data is structured.
 - Assigned to - WS
- User Story 6

- Description - As a developer, I want to make a repository for all of our code on GitHub, so that other developers on the project can make/propose changes to the code whenever.
- Assigned to - AS, WS
- User Story 7
 - Description: As a developer I want to meet with my coworkers to discuss our ideas for the main logic so that we can all be on the same page and work on the project
 - Assigned to - AS, ET, JC, SC, SP, WS
- User Story 8
 - Description: As a user, I want an app that will be able to email me a reminder at a specific time so that I can do my morning bytes
 - Assigned to - AS, JC
- User Story 9
 - Description: As a Capstone 1 Developer I would like to get experience and knowledge on working with virtual environments pertaining to python
 - Assigned to - AD, CC, ET, KS, SC
- User Story 10
 - Description: As a Capstone 1 member I would like to learn how to utilize Github to help create and use branches with the team.
 - Assigned to - AD, CC, ET, KS, SC

Sprint 2

Date: 6/1/2021

Start Time: 6:00 PM

End Time: 6:30 PM

Sprint User Stories:

- User Story 14
 - Description - As a developer, I want to design a database so that information is efficiently stored for queries.
 - Assigned to - AS, WS
- User Story 15
 - Description - As a developer, I wanted to create a database so that information such as data and user information is efficiently stored.
 - Assigned to - AS, WS
- User Story 16
 - Description - As a Capstone I student, I want to create sample information to put into the database to test during development.
 - Assigned to - CC, ET, SC
- User Story 17
 - Description - As a user, I want to receive emails so that I remember to complete my Morning Bytes.

- Assigned to - AS, JC, WS
- User Story 18
 - Description - As a user, I want to access a web app so that I can complete my morning bytes online.
 - Assigned to - AD, KS, SP
- User Story 19
 - Description - As a developer, I want to create basic templates to use as base for the development of other pages of the web app
 - Assigned to - CC, ET, SC
- User Story 20
 - Description - As a developer, I would like to create the main branch for the starting structure of the flask app so that we can have an organized development process
 - Assigned to - AS, WS

Sprint 3

Date: 6/14/2021

Start Time: 6:00 PM

End Time: 6:40 PM

Sprint User Stories:

- User Story 22 - Create Dashboard for Students
 - Description - As a user I want to have an area to list all my classes so that I can easily access them once I log in.
 - Assigned to - AS, ET, JC
- User Story 23 - Create XML Structure and Testers
 - Description - As a developer, I want to create an XML template so that we can have a structure of what the site would look like.
 - Assigned to - JC, WS
- User Story 24 - Add Home Page to Flask App
 - Description - As a user, I want to have a home page for the web application so that I can have a default page to go to.
 - Assigned to - AS, CC, ET, KS, SP, AD, SC
- User Story 26 - Fix sign up and login buttons showing while logged in
 - Description - As a user, I want the sign up buttons and login buttons to not show up while I am logged in so that I won't be confused about whether I am signed in or not.
 - Assigned to - AS, WS
- User Story 27 - Add a signout button
 - Description - As a user, I want a sign out button so that I can remove access to my Morning Bytes profile/account for my device so no other user can access it.
 - Assigned to - AS
- User Story 28 - Disable login and signup URLs when logged in
 - Description - As a user, I want the login and signup URLs to redirect me to my profile page so that I won't access the login/signup page while I am being logged in.
 - Assigned to - AS, WS

- User Story 29 - Edit Draft templates
 - Description - As a developer, I want to create templates for parts of the project so that it can be displayed to the user in a simple format.
 - Assigned to - AS, CC, ET, SC, SP, AD
- User Story 30 -
 - Description - As a user, I want to have meaningful questions so that I can dig deep into the course and understand the material.
 - Assigned to - ET, KS, SC

Sprint 4

Date: 6/28/2021

Start Time: 6:00 PM

End Time: 6:30 PM

Sprint User Stories:

- User Story 32 -
 - Description - As a professor, I want a dashboard so that I can see all the classes and students
 - Assigned to - AS, SP
- User Story 33
 - Description - As a professor, I want to be able to create a class so that I can add the classes I am teaching for the semester
 - Assigned to - AS
- User Story 34
 - Description - As a student, I want to be able to get classes so that I can find the classes I need to join
 - Assigned to - AS
- User Story 35
 - Description - As a student, I want to join a class so that I can join my classes I am taking
 - Assigned to - AS, SP
- User Story 36
 - Description - As a developer, I want to create a page for joining and creating classes so that users can join or create a class for easy access
 - Assigned to - AS, SP
- User Story 37
 - Description - As a developer, I would like to add arrays of assignments to the classroster db to call on the front end
 - Assigned to - JC, KS, WS
- User Story 38
 - Description - As a developer I would like to add arrays of assignments to the classes db to call on the front end
 - Assigned to - JC, WS
- User Story 39
 - Description - As a developer I would like to fix the template for displaying the questions page so it doesn't refresh the students answers.
 - Assigned to - CC, ET, KS, SC, SP, AD
- User Story 40

- Description - As a developer I would like to create a model for the questionbank database collection.
- Assigned to - JC, WS

Sprint 5

Date: 7/13/2021

Start Time: 4:45 PM

End Time: 5:15 PM

Sprint User Stories:

- User Story 44 -
 - Description - As a user, I want to have a nicer looking page so that I can work with my classes easier.
 - Assigned to - ET, KS, CC, SC, AD, SP
- User Story 45 -
 - Description - As a developer, I want to add jquery to update the professor's dashboard so that the user doesn't need to refresh the page.
 - Assigned to - AS, WS
- User Story 46 -
 - Description - As a user, I want to be able to delete classes so that I can organize my dashboard
 - Assigned to - AS, WS, ET, JC
- User Story 47 -
 - Description - As a developer, I want to add more XML sample data so that I can do more tests with the app
 - Assigned to - SP

SYSTEM DESIGN

1. Frontend

The frontend is implemented in flask templates that house the HTML portions of the website. We have the bootstrap framework tidy up the separate components such as buttons, forms, cards ect. We also used modal buttons which allow us to pop out options for the user to interact with.

2. Backend

The backend is housed in our models inside the flask models directory. This is where we have our data coming from the user connect to the MongoDB database we set up to store our user information, class information and questions.

3. Database

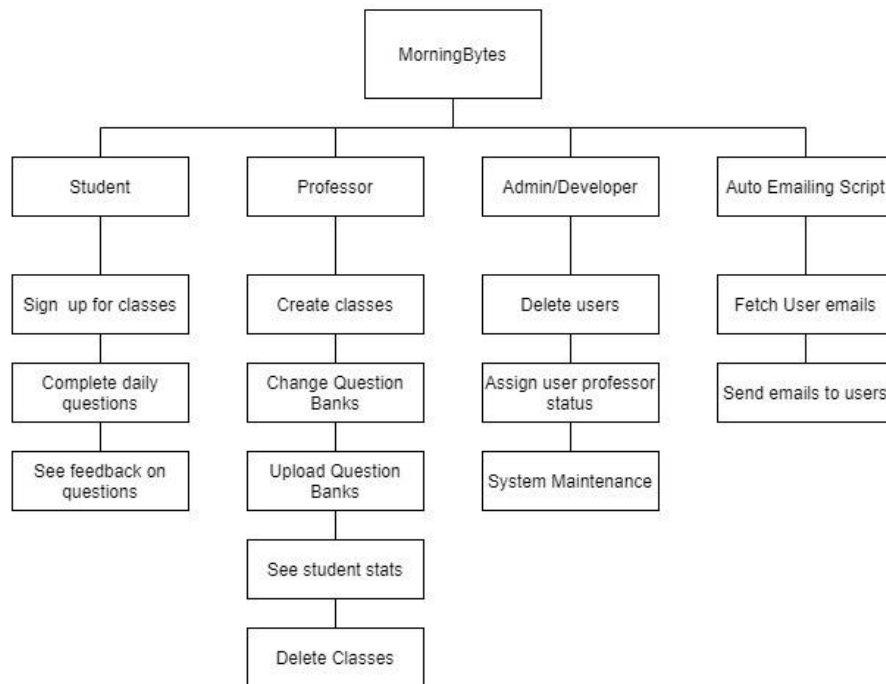
User information, encrypted test passwords, class information, questionbanks and other test data is stored in MongoDB.

4. Auto Emailing Script

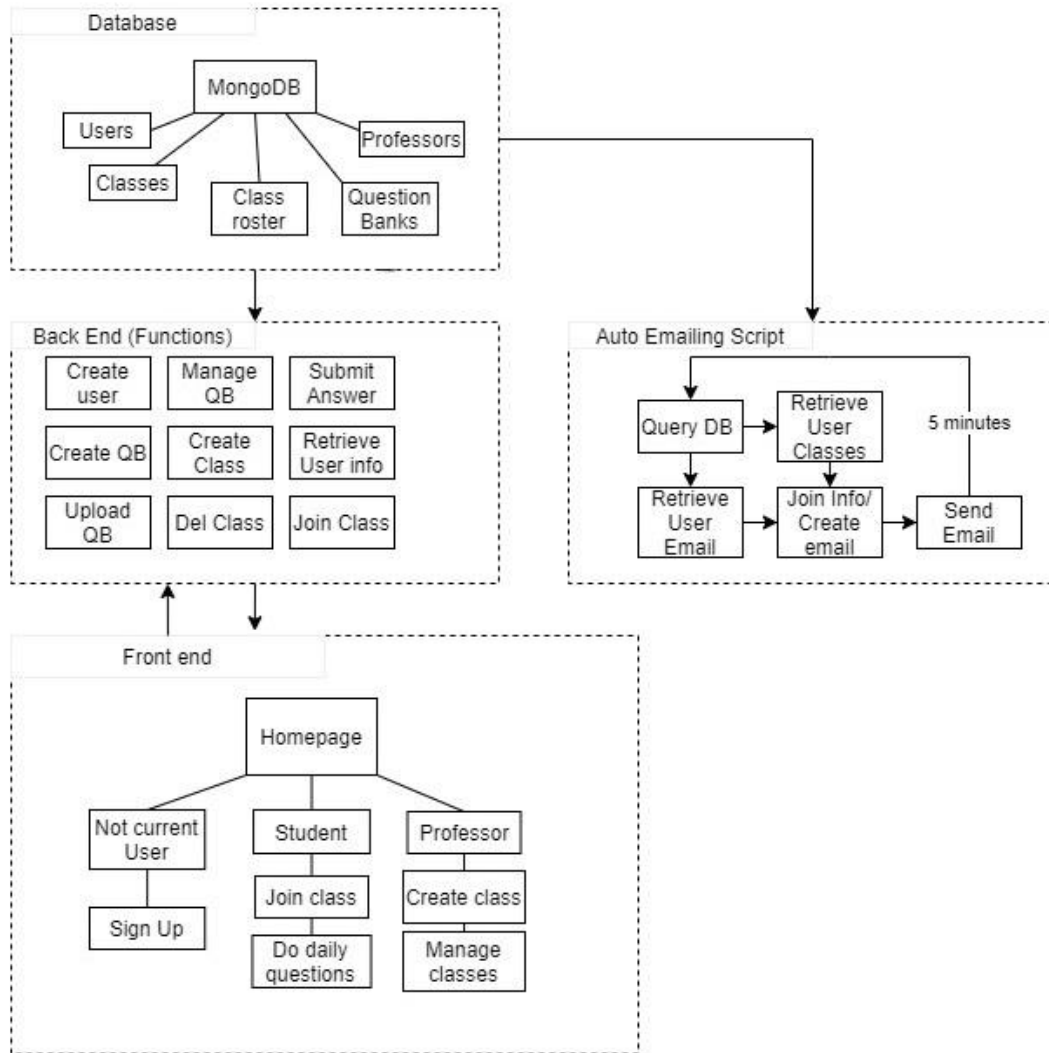
Our script that allows students to be emailed as a reminder to do their daily questions is ran separately as it reads data from the MongoDB database to know who and when to email students.

Architectural Patterns

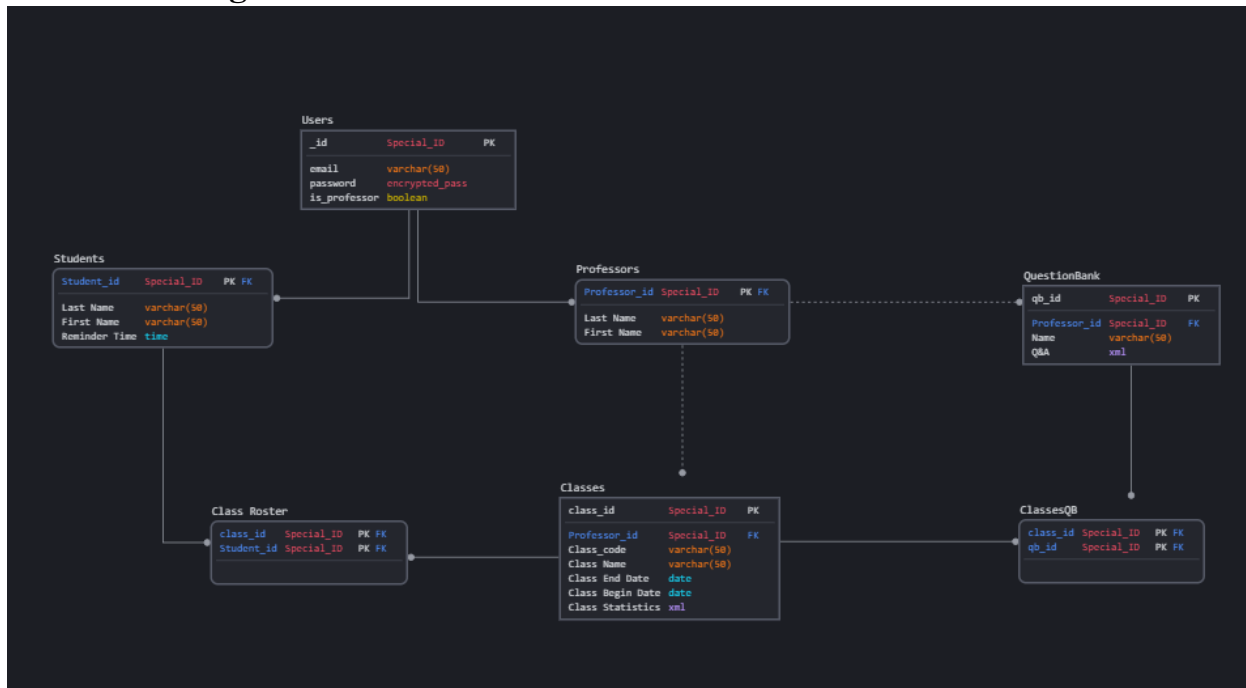
System and Subsystem Decomposition



Deployment Diagram



Database Design Pattern



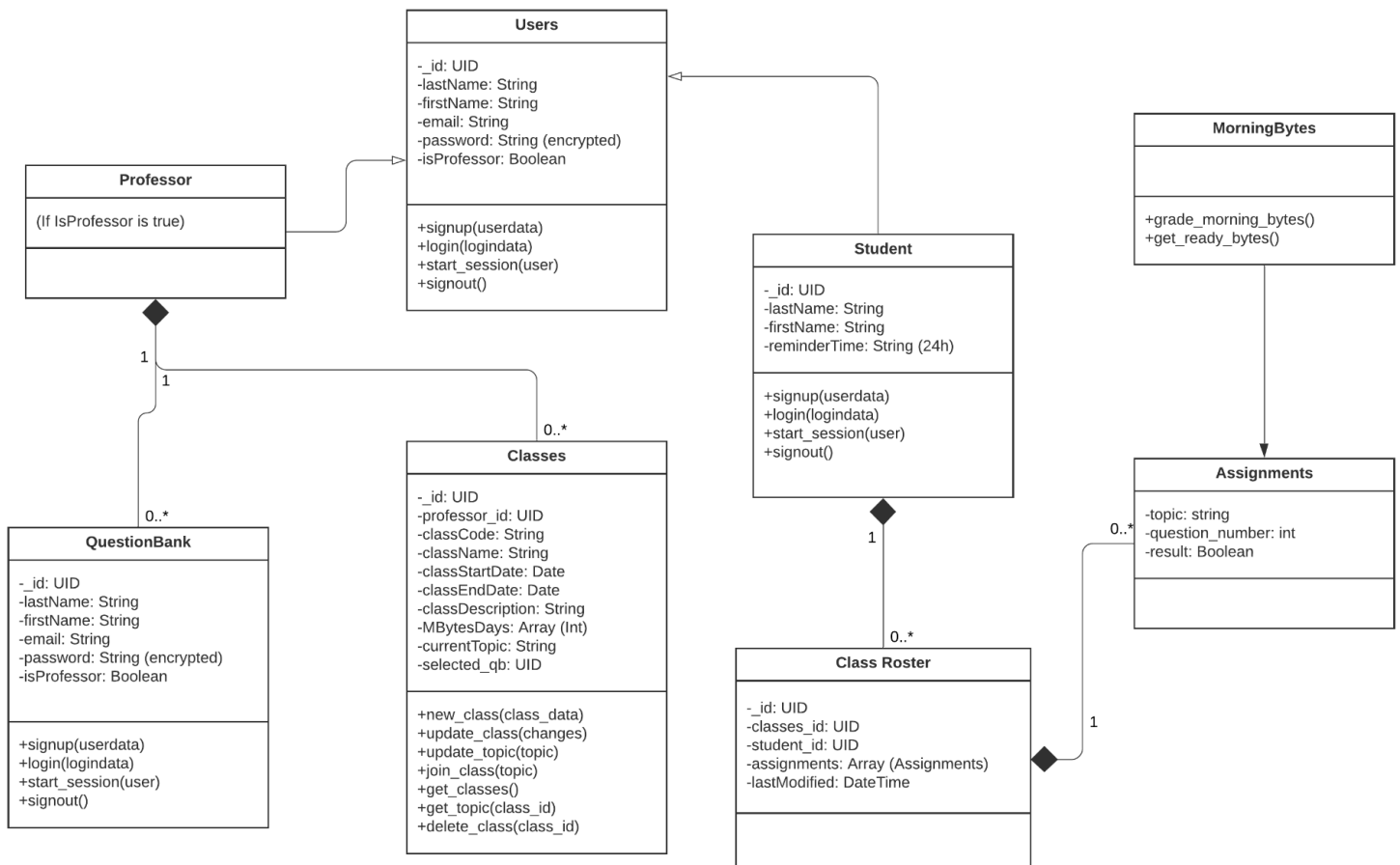
APPENDIX

Appendix A - UML Diagrams

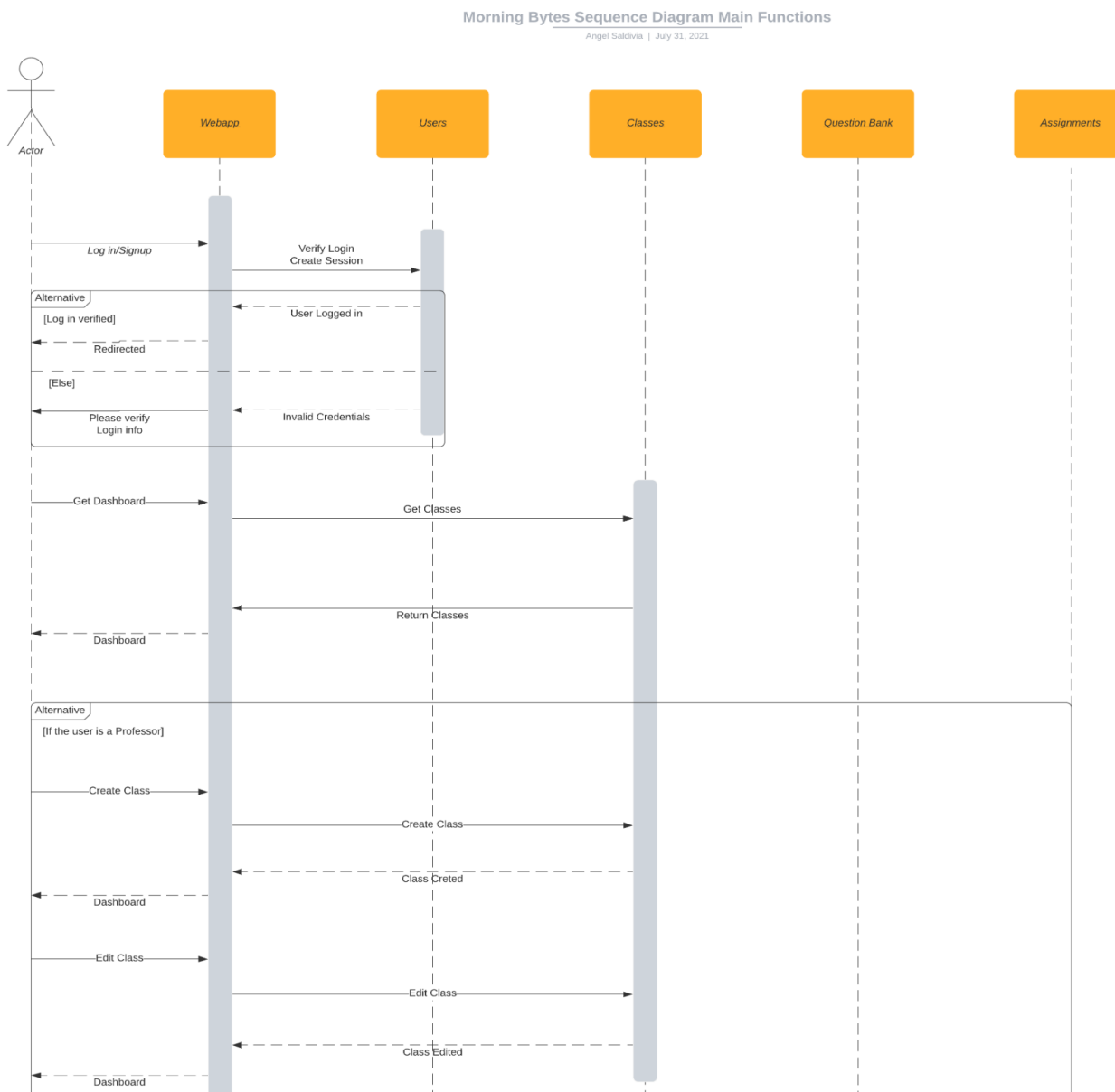
Angel Saldivia
Class Diagrams

Morning Bytes UML Class Diagram

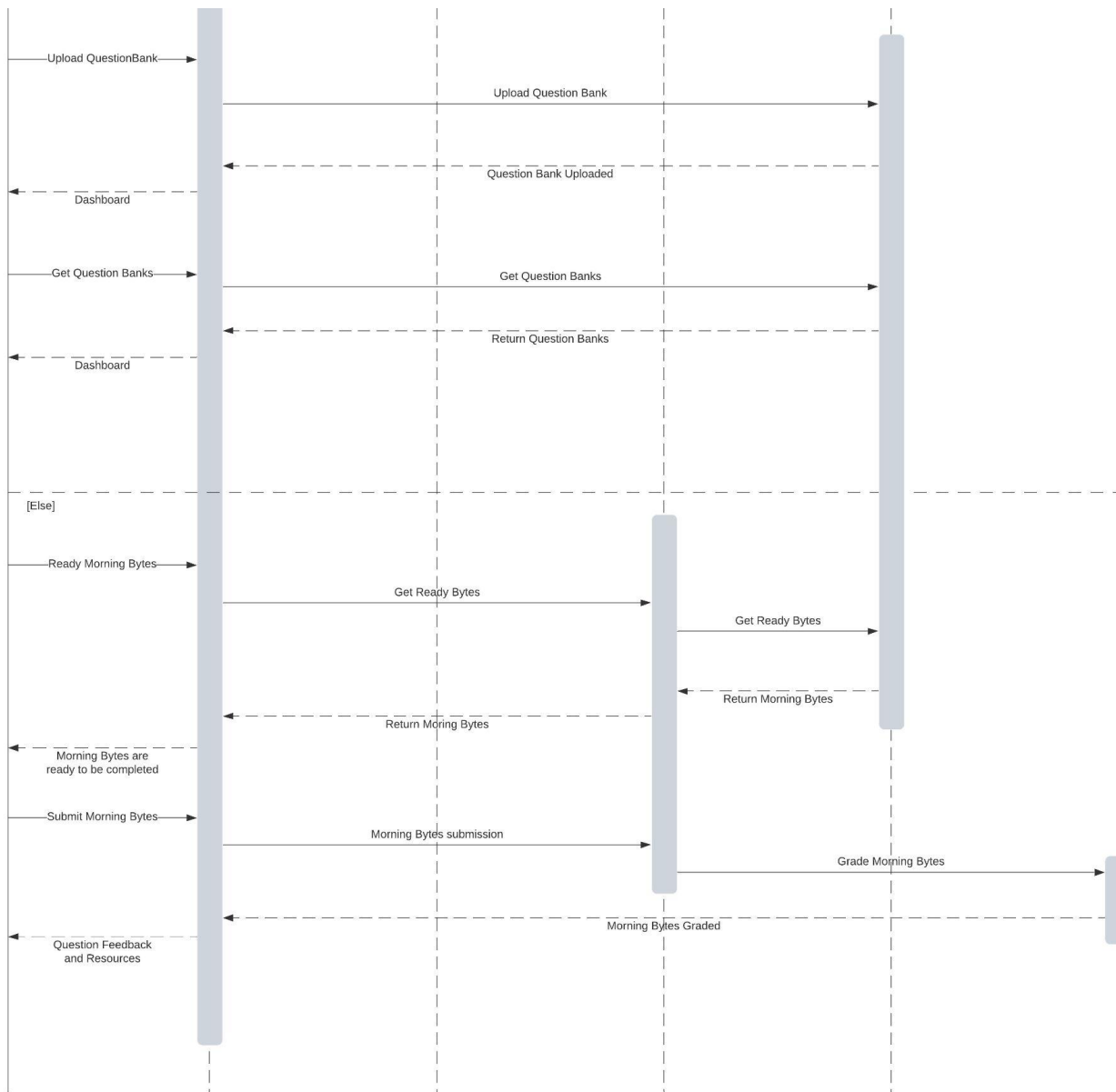
Angel Saldivia | July 31, 2021



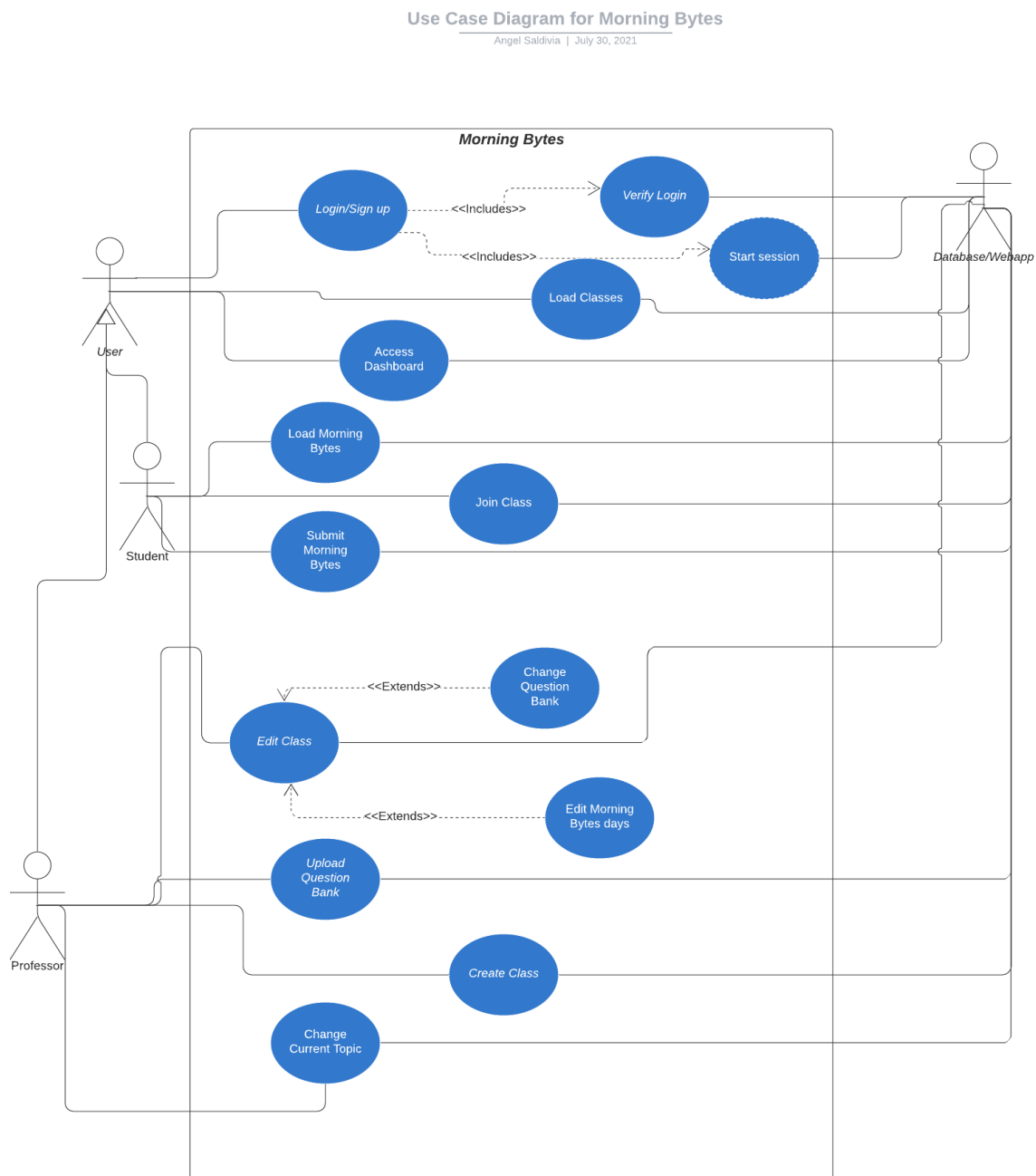
Sequence Diagrams



(Continued on the next page *Full Diagram on Diagram Folder)

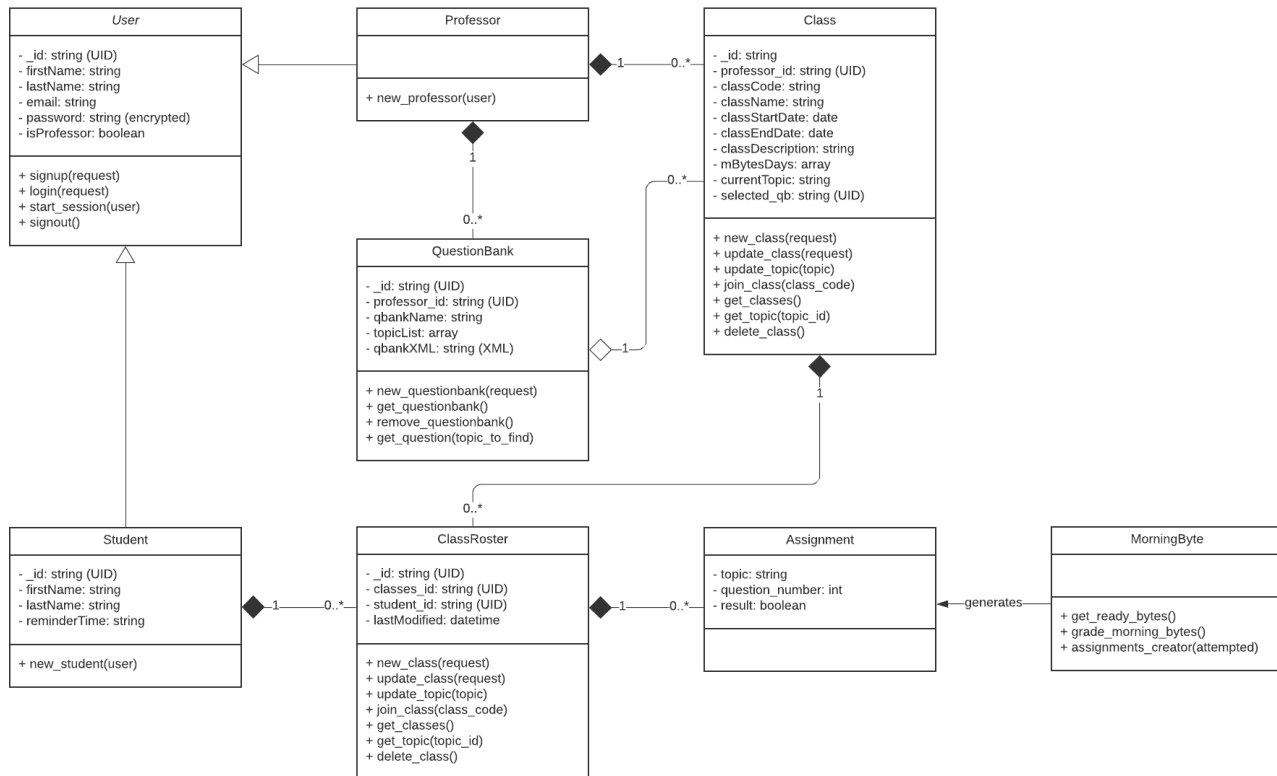


Use Case Diagram

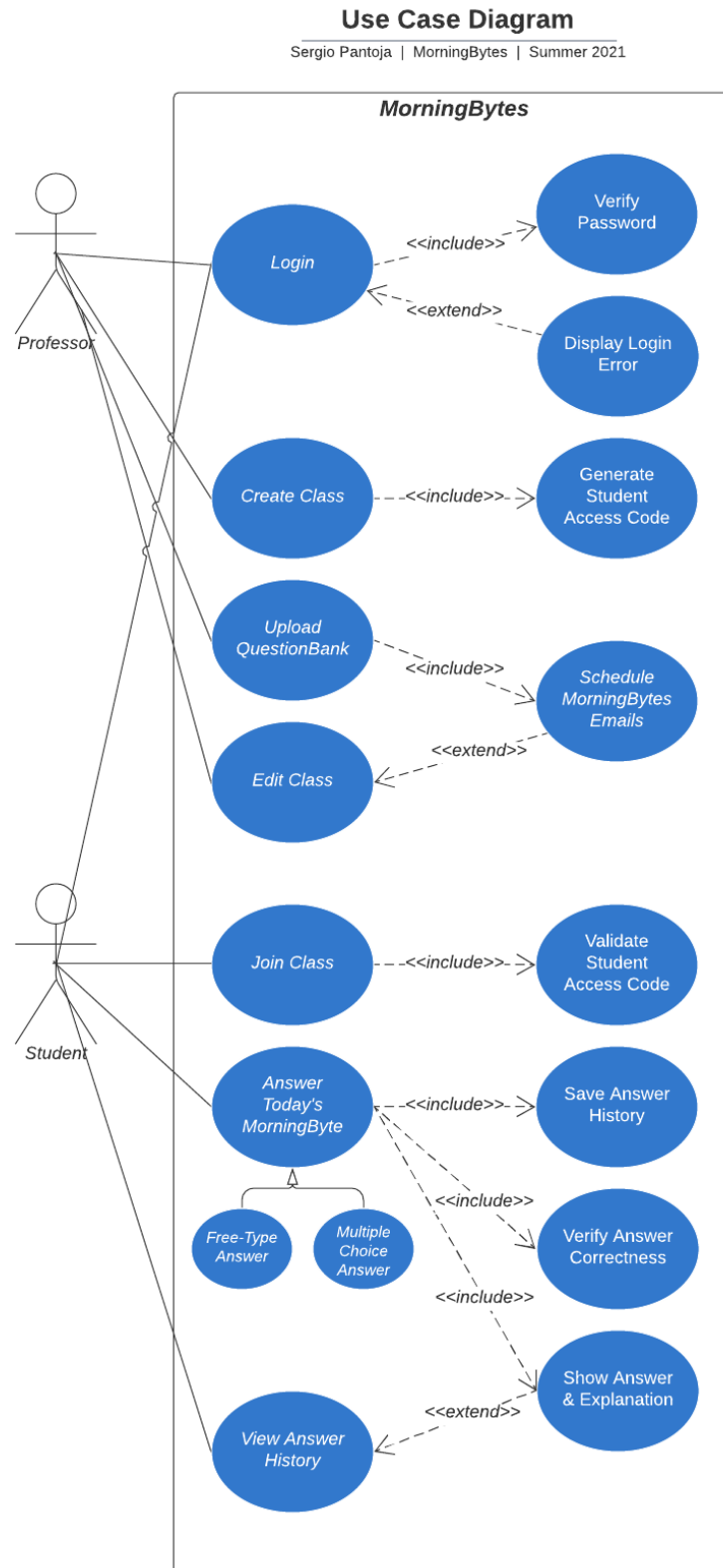


Sergio Pantoja**Sergio Pantoja: Class Diagram****Class Diagram**

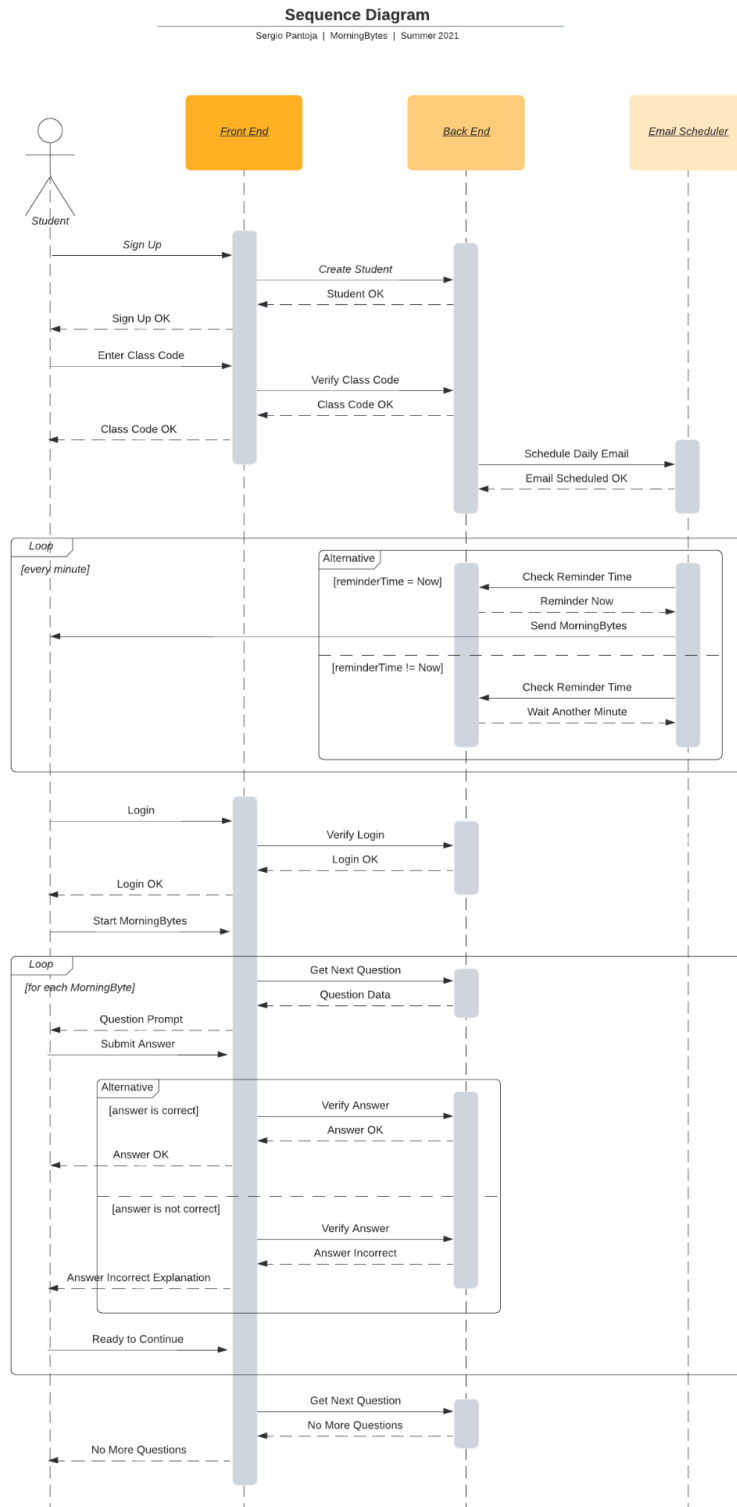
Sergio Pantoja | MorningBytes | Summer 2021



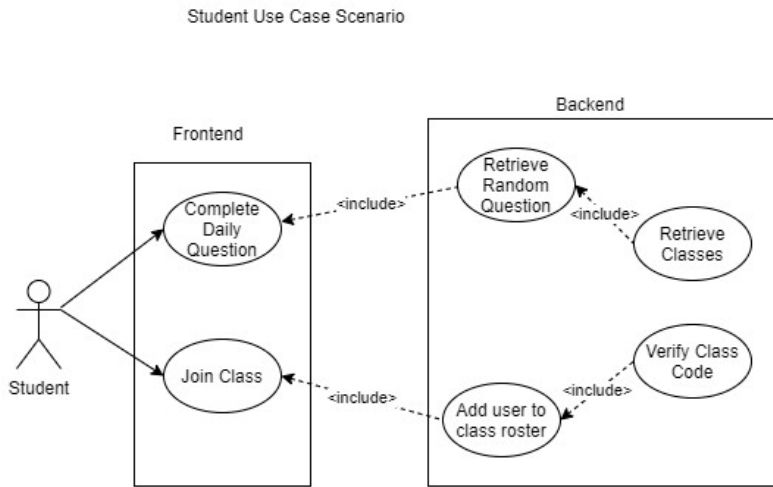
Sergio Pantoja: Use Case Diagram



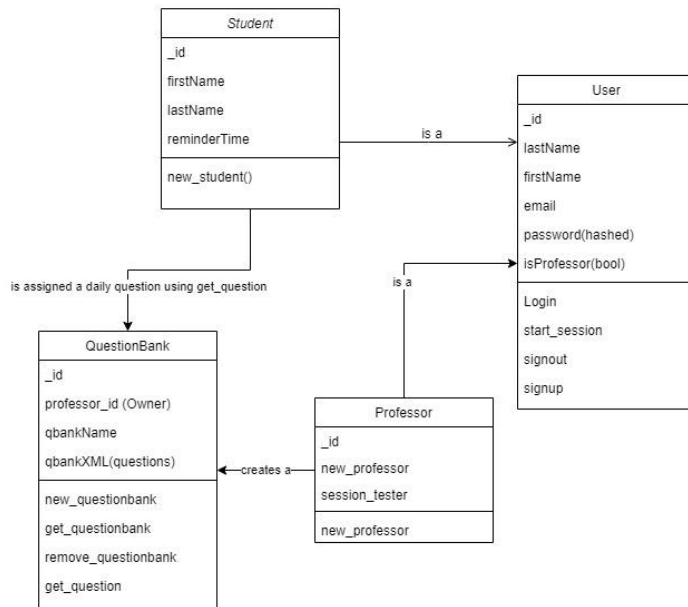
Sergio Pantoja: Sequence Diagram

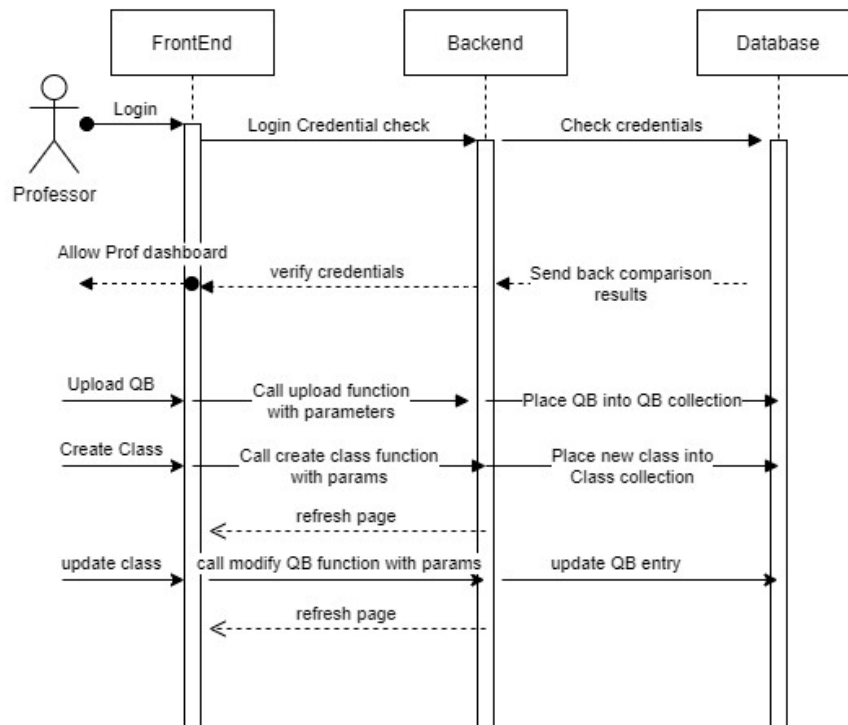


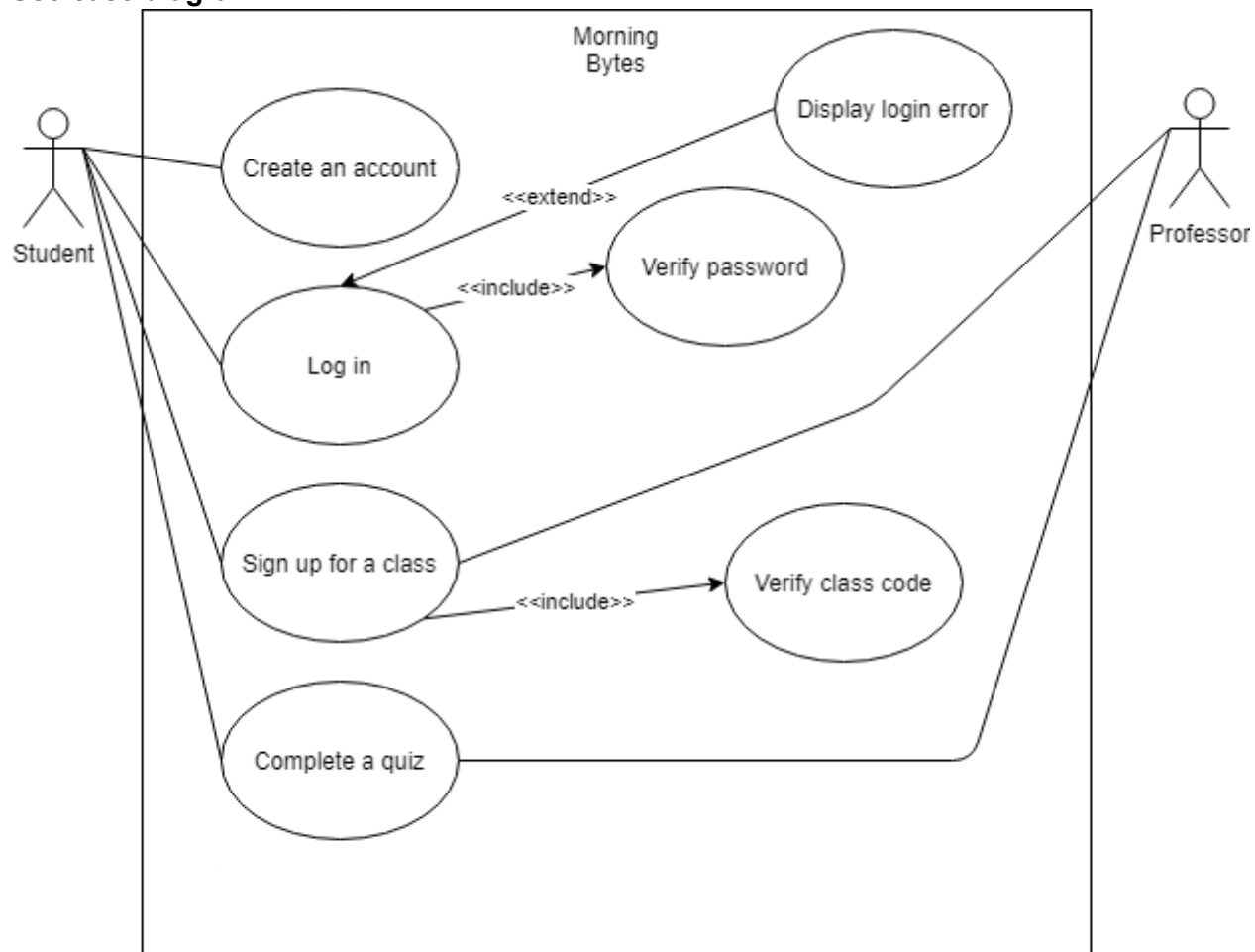
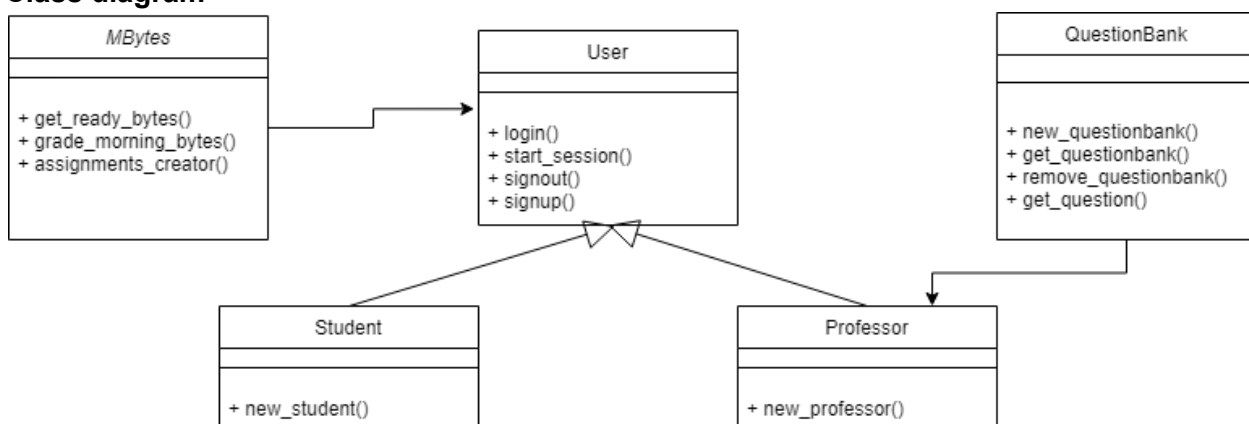
William Smith
Use Case Diagram

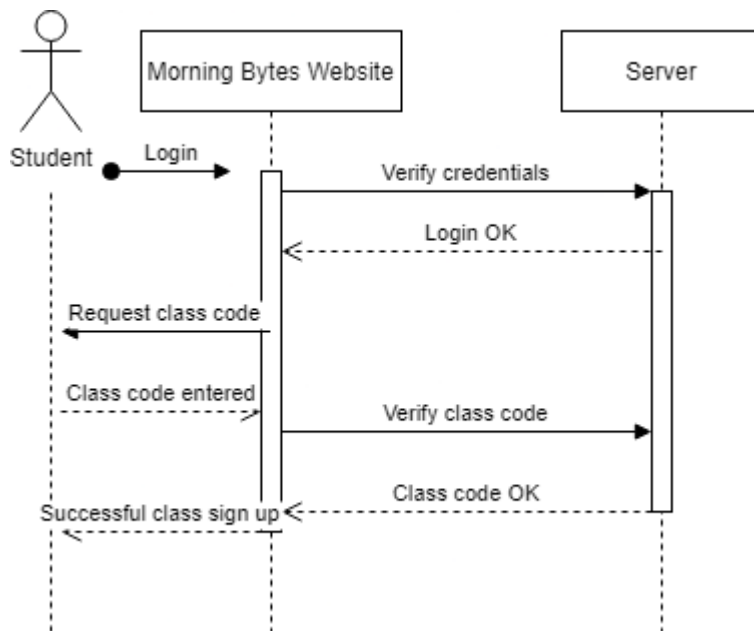


Class diagram



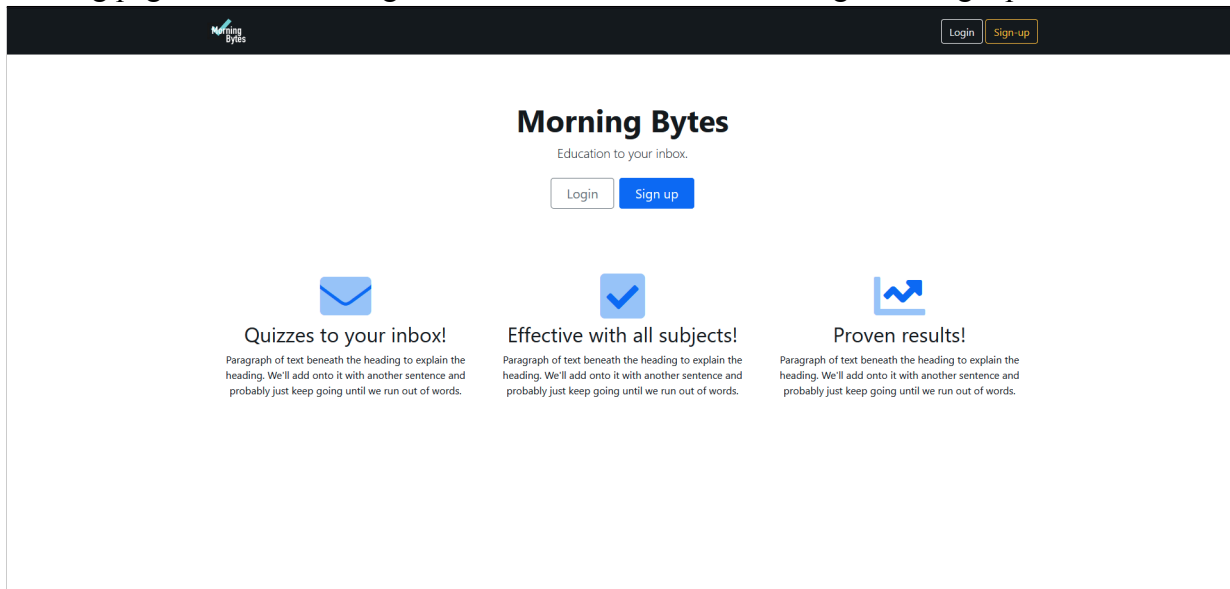
Sequence Diagram

Jeffrey Cuello**Use case diagram****Class diagram**

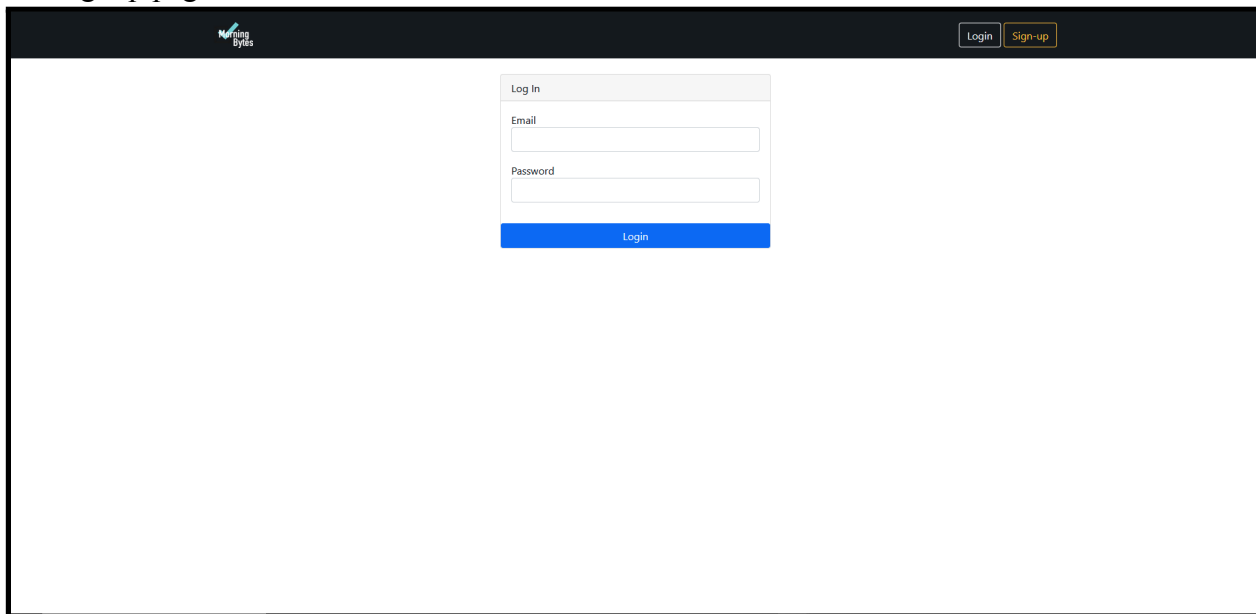
sequence diagram

Appendix B - User Interface Design

Landing page when user first goes into the website. We have a login and signup button



The signup page



This is the professor view in which he or she can add classes and question banks

Dashboard prof_tools Logout

Welcome, Professor Saldivia

Statistics 101
 Invite Code: OBED7CE
 Current Topic
 Week2 (Current)
 Edit Class

Create Class Upload QB

Name
 Description
 Start Date
 mm / dd / yyyy
 End Date
 mm / dd / yyyy
 Days of Morning Bytes
 Mon Tue Wed Thu Fri Sat Sun
 Create Class

This is the view for editing the current question bank

Dashboard prof_tools Logout

Welcome, Professor Saldivia

Statistics 101
 Invite Code: OBED7CE
 Current Topic
 Week2 (Current)
 Edit Class

Create Class Upload QB

Name
 Description
 Start Date
 mm / dd / yyyy
 End Date
 mm / dd / yyyy
 Days of Morning Bytes
 Mon Tue Wed Thu Fri Sat Sun
 Create Class

Statistics 101

Here you can edit this class
 End Date: 2021-08-31 End Date: 2021-07-24
 QuestionBank Name
 Statistics QuestionBank (Current)
 Save Changes

This is the student view when seeing their current classes

Appendix C - Sprint Review Reports

Attendees of meetings:

Product Owners:

- Giri Narasimhan

Developers:

- Capstone 2
 - Angel Saldivia (AS)
 - William Smith (WS)
- Senior Project
 - Jeffrey Cuello (JC)
 - Sergio Pantoja (SP)
- Capstone 1
 - Simarjeet Chhabra (SC)
 - Carlos Cordero (CC)
 - Adam Samson (AD)
 - Karanveer Sandhu (KS)
 - Eric Tu (ET)

Sprint 1

Date: 5/28/21

Start Time: 6:00 p.m

End Time: 6:30 p.m

After a show and tell presentation, the implementation of the following user stories were accepted by the product owners:

- User Story 1 -
 - Description - As a Capstone 2 student, I want to find python resources so that Capstone 1 students are able to learn and understand future code.
 - Assigned to - AS, JC, SP, WS
- User Story 2
 - Description - As a Capstone I & II student, I want to learn the fundamentals of Python so that I can work on the project using Python.
 - Assigned to - AD, CC, ET, KS, SC
- User Story 3
 - Description - As a developer I would like to find and share tools for sending emails in python
 - Assigned to - AS, JC, SP, WS
- User Story 4
 - Description - As a developer, I want to plan a database so that I can effectively store the data that will be needed for the project.
 - Assigned to - AS, KS, SP, WS
- User Story 5

- Description - As a developer, I want to create a sample database to store sample data, so I can recognize how the data is structured.
- Assigned to - WS
- User Story 6
 - Description - As a developer, I want to make a repository for all of our code on GitHub, so that other developers on the project can make/propose changes to the code whenever.
 - Assigned to - AS, WS
- User Story 7
 - Description: As a developer I want to meet with my coworkers to discuss our ideas for the main logic so that we can all be on the same page and work on the project
 - Assigned to - AS, ET, JC, SC, SP, WS
- User Story 8
 - Description: As a user, I want an app that will be able to email me a reminder at a specific time so that I can do my morning bytes
 - Assigned to - AS, JC
- User Story 9
 - Description: As a Capstone 1 Developer I would like to get experience and knowledge on working with virtual environments pertaining to python
 - Assigned to - AD, CC, ET, KS, SC
- User Story 10
 - Description: As a Capstone 1 member I would like to learn how to utilize Github to help create and use branches with the team.
 - Assigned to - AD, CC, ET, KS, SC
- User Story 11
 - Description: As a developer, I want to research flask resources so that I can develop a web app using Python
 - Assigned to - AS,ET,KS,SP
- User Story 12
 - Description: As a developer, I want to research Django resources so that I can develop a web app using Python
 - Assigned to - AS,JC,WS
- User Story 13
 - Description: As a developer, I want to review the shared resources so that I can develop a web app using Python
 - Assigned to - AS,ET,JC,KS,SP,WS

The following ones were rejected and moved back to the product backlog to be assigned to a future sprint at a future Sprint Planning meeting: None

Sprint 2

Date: 6/11/2021

Start Time: 6:00 PM

End Time: 6:30 PM

After a show and tell presentation, the implementation of the following user stories were accepted by the product owners:

- User Story 14
 - Description - As a developer, I want to design a database so that information is efficiently stored for queries.
 - Assigned to - AS, WS
- User Story 15
 - Description - As a developer, I wanted to create a database so that information such as data and user information is efficiently stored.
 - Assigned to - AS, WS
- User Story 16
 - Description - As a Capstone I student, I want to create sample information to put into the database to test during development.
 - Assigned to - CC, ET, SC
- User Story 17
 - Description - As a user, I want to receive emails so that I remember to complete my Morning Bytes.
 - Assigned to - AS, JC, WS
- User Story 18
 - Description - As a user, I want to access a web app so that I can complete my morning bytes online.
 - Assigned to - AD, KS, SP
- User Story 19
 - Description - As a developer, I want to create basic templates to use as base for the development of other pages of the web app
 - Assigned to - CC, ET, SC
- User Story 20
 - Description - As a developer, I would like to create the main branch for the starting structure of the flask app so that we can have an organized development process
 - Assigned to - AS, WS
- User Story 21
 - Description: As a developer, I want to implement a login page for students for the flask web application so that students can see only their own quiz questions.
 - Assigned to - AS, KS
- User Story 25
 - Description: As a developer, I want to implement code that allows access to a database in the Flask Application so that I can get access to quiz questions and input answers for those questions.
 - Assigned to - AS, WS

The following ones were rejected and moved back to the product backlog to be assigned to a future sprint at a future Sprint Planning meeting:

- User Story 22
 - Description: As a user, I want to have an area to list all my classes so that I can easily access them once I log in.
 - Assigned to - AS, ET, JC
- User Story 23
 - Description: As a developer, I want to create an XML template so that we can have a structure of what the site would look like.

- Assigned to - WS, JC
- User Story 24
 - Description: As a user, I want to have a home page for the web application so that I can have a default page to go to.
 - Assigned to - AS, CC, KS, SC

Sprint 3

Date: 6/25/2021

Start Time: 6:00 P.M

End Time: 6:40 P.M

After a show and tell presentation, the implementation of the following user stories were accepted by the product owners:

- User Story 22 - Create Dashboard for Students
 - Description - As a user I want to have an area to list all my classes so that I can easily access them once I log in.
 - Assigned to - AS, ET, JC
- User Story 23 - Create XML Structure and Testers
 - Description - As a developer, I want to create an XML template so that we can have a structure of what the site would look like.
 - Assigned to - JC, WS
- User Story 24 - Add Home Page to Flask App
 - Description - As a user, I want to have a home page for the web application so that I can have a default page to go to.
 - Assigned to - AS, CC, ET, KS, SP, AD, SC
- User Story 26 - Fix sign up and login buttons showing while logged in
 - Description - As a user, I want the sign up buttons and login buttons to not show up while I am logged in so that I won't be confused about whether I am signed in or not.
 - Assigned to - AS, WS
- User Story 27 - Add a signout button
 - Description - As a user, I want a sign out button so that I can remove access to my Morning Bytes profile/account for my device so no other user can access it.
 - Assigned to - AS
- User Story 28 - Disable login and signup URLs when logged in
 - Description - As a user, I want the login and signup URLs to redirect me to my profile page so that I won't access the login/signup page while I am being logged in.
 - Assigned to - AS, WS
- User Story 29 - Edit Draft templates
 - Description - As a developer, I want to create templates for parts of the project so that it can be displayed to the user in a simple format.
 - Assigned to - AS, CC, ET, SC, SP, AD
- User Story 30 -
 - Description - As a user, I want to have meaningful questions so that I can dig deep into the course and understand the material.
 - Assigned to - ET, KS, SC

- User Story 31
 - Description: As a programmer, I would like to convert the dashboard and website designs into HTML for front end use so that there is a nice display to welcome users.
 - Assigned to - SP
- User Story 32
 - Description: As a developer, I want to create a "create class" page into HTML so that professors have a way to create their classes in the application
 - Assigned to - ET, JC, WS

The following ones were rejected and moved back to the product backlog to be assigned to a future sprint at a future Sprint Planning meeting: None

Sprint 4

Date: 7/9/2021

Start Time: 6:00 PM

End Time: 7:00 PM

After a show and tell presentation, the implementation of the following user stories were accepted by the product owners:

- User Story 32 -
 - Description - As a professor, I want a dashboard so that I can see all the classes and students
 - Assigned to - AS, SP
- User Story 33
 - Description - As a professor, I want to be able to create a class so that I can add the classes I am teaching for the semester
 - Assigned to - AS
- User Story 34
 - Description - As a student, I want to be able to get classes so that I can find the classes I need to join
 - Assigned to - AS
- User Story 35
 - Description - As a student, I want to join a class so that I can join my classes I am taking
 - Assigned to - AS, SP
- User Story 36
 - Description - As a developer, I want to create a page for joining and creating classes so that users can join or create a class for easy access
 - Assigned to - AS, SP, CC, SC, ET
- User Story 37
 - Description - As a developer, I would like to add arrays of assignments to the class roster db to call on the front end
 - Assigned to - JC, KS, WS
- User Story 38

- Description - As a developer I would like to add arrays of assignments to the classes db to call on the front end
- Assigned to - JC, WS
- User Story 39 -
 - Description - As a developer I would like to fix the template for displaying the questions page so it doesn't refresh the students answers.
 - Assigned to - CC, ET, KS, SC, SP, AD
- User Story 40
 - Description - As a developer I would like to create a model for the question bank database collection.
 - Assigned to - JC, WS
- User Story 41 -
 - Description - As a developer, I would like to fix the email sender script for reminding students.
 - Assigned to - ET, WS, AD, SC
- User Story 42 -
 - Description - As a developer I would like to add modal functionality to the dashboard for students and teachers
 - Assigned to - AS, KS, WS, AD, CC, ET, SC
- User Story 43 -
 - Description - As a developer I would like to add jquery to update the class form without having the user refresh the page.
 - Assigned to - AS,

The following ones were rejected and moved back to the product backlog to be assigned to a future sprint at a future Sprint Planning meeting: None

Sprint 5

Date: 7/23/2021

Start Time: 6:00 PM

End Time: 6:30 PM

After a show and tell presentation, the implementation of the following user stories were accepted by the product owners:

- User Story 44 -
 - Description - As a user, I want to have a nicer looking page so that I can work with my classes easier.
 - Assigned to - ET, KS, CC, SC, AD, SP
- User Story 45 -
 - Description - As a developer, I want to add jquery to update the professor's dashboard so that the user doesn't need to refresh the page.
 - Assigned to - AS, WS
- User Story 46 -
 - Description - As a user, I want to be able to delete classes so that I can organize my dashboard

- Assigned to - AS, WS, ET, JC
- User Story 47 -
 - Description - As a developer, I want to add more XML sample data so that I can do more tests with the app
 - Assigned to - SP
- User Story 48 -
 - Description - As a developer, I want to clean up the email presentation so that users can view the email announcement clearly.
 - Assigned to - AD, CC, ET, SC, SP, WS
- User Story 49 -
 - Description - As a user, I want to change dates for MorningBytes so that I can determine when MorningBytes show up for all students.
 - Assigned to - AS
- User Story 50
 - Description - As a developer, I would like to clean up the front end of the website to make it more presentable to the users of the website
 - Assigned to - JC, ET, WS

The following ones were rejected and moved back to the product backlog to be assigned to a future sprint at a future Sprint Planning meeting: None

Appendix D - User Manuals, Installation/Maintenance Document, Shortcomings/Wishlist Document and other documents

Installation/Maintenance

1. Install latest version of python
2. Create a python virtual environment (optional)
3. Copy the code files into your desired folder
4. Using the password provided by the professor, follow the steps under the Database Folder in order to set up your own version of the MongoDB database
5. Create a new github (or any version control software) repository (recommended)
6. Download all dependencies in requirements.txt using `pip install -r requirements.txt`
7. Finally, make sure you either create your own .env files with the database connections and secret keys (recommended) or hard code them into the code. Lines 13 and 16 of app.py and emailing_app.py
8. Change directory into Backend and run emailing_app.py if you want to use the emailing service
9. Change directory into Website and follow the instructions under Readme.md
10. Use (for bash shell) `export FLASK\_ENV=development` and run the website with `flask run`

Shortcomings/Wishlist

1. A way to create professor accounts. We currently have a sign-up page, which you can see [here](#). But this only creates students. In the code, you can see the signup logic actually hardcoded “isProfessor” to false. So in order to create a professor right now, we have to go directly into the MongoDB database and edit that attribute. Obviously, it’d be much better if there was a way to do this within the web application itself.
2. Students can’t view their past questions. That means they don’t have any way of seeing their statistics, and they don’t have any way of seeing the detailed feedback on questions answered incorrectly. The data for student answer history is already being saved in the database, so future teams just need to display that data somewhere in the front-end user interface.
3. We don’t have a way for professors to delete question banks. This is another example where most of the backend code is actually there already, but we haven’t been able to create a front-end user interface to make it happen yet.
4. Most programmers know that working with timezones can be tough. There’s UTC vs GMT; the server is in Eastern time, but the user is visiting from Central time; there’s daylight savings here, but not there; so on so forth. So, inevitably, there’s a discrepancy in our application between timezones. In our case, it seems to be because the server and database are hosted in different places. Ideally, on our wishlist, we’d like to see all times converted to UTC when being used in the server and database, and then only converted to a user’s local time when being displayed somewhere in the UI.

Database Setup

To import the MongoDB database, extract the encrypted ZIP file, then use `mongoimport` (<https://docs.mongodb.com/database-tools/mongoimport/>) with the following command for each file:

```
mongoimport --file=file.json --uri=mongodb_uri --collection=collection_name
```

For the sample questions, we have online found computer science questions that can be used for testing the questionbanks. However, they may need to be fixed in order to meet the current requirements for databases.

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