

Team #4 - Niner Rater
ITSC 3155 Final Project Report

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1 - Introduction

Our team had the idea to design and implement a professor rating application for the school of UNC Charlotte. We had all discussed our individual experiences with the commonly used “Rate My Professor” tool and agreed that we wanted an application much closer to home. We all wanted more in depth information, reviews, and feedback on our current or future professors here at our school. We were strongly motivated by the idea of giving all UNC Charlotte students a better college experience.

Our application will enable UNC Charlotte students to create and maintain an account where they can view current ratings or create new ones. A feature not found on the “Rate My Professor” app which we think will be very helpful to students is the search by department feature. Students of any major will now be able to quickly narrow down which professors they think will be the best fit for them within their department.

1.1 Product Vision

Mission: To create an interactive database to track Professor Ratings at UNCC. We will use a third party authentication service for user account creation and maintenance.

- FOR University of North Carolina at Charlotte students and professors.
- Students WHO do not know or can not decide between which UNCC classes to register for.
- The “Niner Rater” application is an educational and social networking application.
- THAT key benefit/compelling reason to use is gaining depth and detailed advice on UNCC courses and professors. We want students to have the best college experience.
- UNLIKE other platforms like Rate My Professor because it is strictly for UNCC Professors. Ratings and Reviews will be much more elaborate and specified within the specific college.
- OUR PRODUCT is much closer to home and can be adopted by any University (not just UNCC).

1.2 Customer Description

Our customers include all of the students and professors at the University of North Carolina at Charlotte. Specifically, our target customer is students who are seeking the best academic experience fit to their standards.

Our Niner Rater application is designed to provide students and professors with a highly detailed and personalized view of UNCC courses and their instructors. By using our app, students will gain a better understanding of the courses they are interested in. Professors can also greatly benefit by receiving valuable feedback from their students which may help them to improve their teaching methods

1.3 Project Scope and Objectives

The scope of our project is such that we want to provide UNC Charlotte students with a source to view and create deeper and more elaborate professor/course reviews than what's currently available. We hope to accomplish this by providing features such as a wide array of review filters and search options. Our application will only be available to students currently enrolled in UNC Charlotte. We designed our application to be implemented one school at a time and to not contain information from outside institutions or universities.

1.4 Ethical concerns

An ethical concern of our app is that it can potentially be biased, inaccurate, and unfair. Ratings given by students may be influenced by a variety of factors such as personal biases, conflicts with the professor, or even unrelated factors such as the course difficulty. Another ethical concern is if there is any personal information disclosed about the professors.

2 Project Resources

2.1 Group Members

1. Eric Chaves
2. Ian York
3. Ronnie Johnston
4. Gabriel Van Dreel
5. Dylan D'Eloia

2.2 Hardware and Software Resources

Hardware:

Internet enabled computing device

Software:

A source code editing environment / GUI (VSCode)

Figma for UI design

MYSQL server access

Python Virtual Environment with dependencies (see requirements.txt)

- Flask dependencies

- MYSQL and SQLAlchemy dependencies

- Google Auth dependencies

A remote communication resource for our team to discuss progress and collaborate

A version control application for an efficient team coding workflow

- Github / Github Desktop

2.3 Special Resources

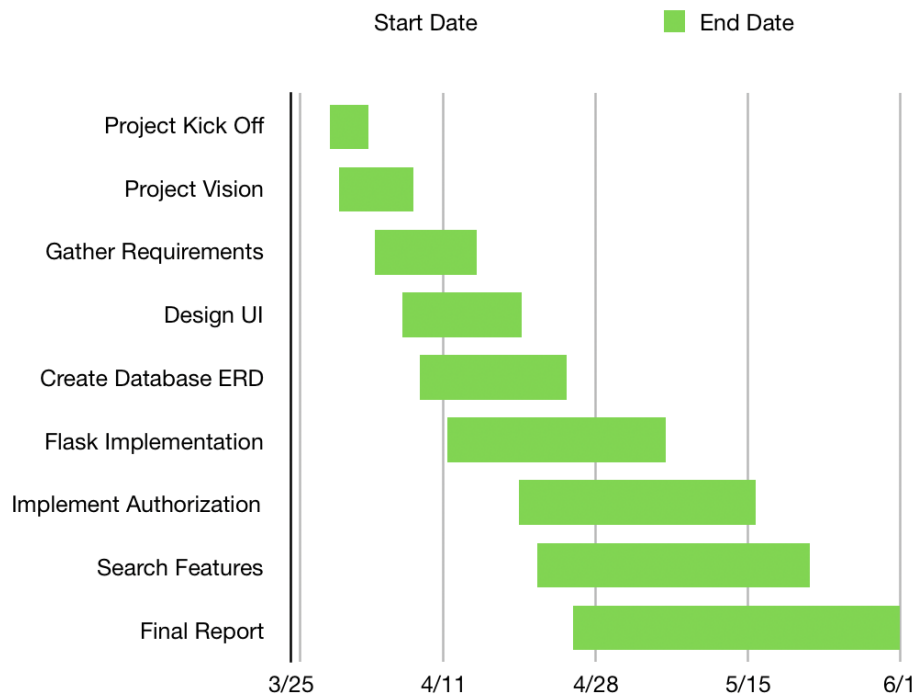
Third party authentication software

Third party search filtering tool

3 Plan

This section contains is a list of tasks and deliverables associated with the project, a Gantt chart depicting task durations, dependencies and completion dates, and a summary of resource requirements and assignments for each task.

3.1 Timeline Chart



3.2 Task/Milestone Descriptions

Project Kick Off - Our first discussions about our project ideas

Project Vision - Completed project vision document

Gather Requirements - Discussed application requirements for our product vision

Design UI - Completed UI mockup of application using Figma

Create Database ERD - Completed ERD schema for professor and course review database for our app

Flask Implementation - Created project src code with app.py and HTML layouts

Implement Authorization - Implemented Authorization feature in source code

3.3 Resource Table

Task	People
Create Trello Board	Dylan D'Eloia
Work on ERD and Database Schema	Eric Chaves
Work on ERD	Ian York
Review ERD and Database Schema	Gabriel Van Dreel
Code models.py in App	Eric Chaves
Catch up with SQL content	Dylan D'Eloia
Work on Product Vision	Dylan D'Eloia
Work on CSS and HTML	Ian York
Work on User Stories	Ian York
Work on Feature List	Ian York
Link app.py and HTML to start full ap functionality	Ronnie Johnston
Work on App.py	Ronnie Johnston
Work on Trello Board	Gabriel Van Dreel
Push meeting documents to Github	Eric Chaves
Work on User Stories	Gabriel Van Dreel
Implement Google Auth	Eric Chaves
HTML Layouts	Ian York
Final Presentation	Ian York
Flask App Database Implementation	Ronnie Johnston
Finish Repository Functions	Eric Chaves

4 System Design

4.1 User Stories

As a UNCC student, I want a platform that allows me to see current ratings of professors specifically at UNCC so I can better plan my schedule.

As a UNCC student, I want to be able to write reviews of my professors so that they may read them and improve, or see that they are appreciated.

As a UNCC professor, I want to be able to see what students in my school rate the classes I teach so that I may improve for future classes.

As a UNCC administrator, I want to be able to see ratings of all professors by students, to better understand how to shape the department.

As a student considering attending UNCC, I want to be able to see ratings of all professors so that I can form an opinion of the teaching environment at UNCC.

As a UNCC student, I want to be able to write reviews, both positive and negative, of professors at UNCC, so that other students can choose what professors fit their needs based not only on a rating, but a description including the class and when it was taken.

As a UNCC student, I want to be able to easily access professor ratings based on the course I am looking to enroll in so that I can choose the best professor that fits my needs without having to look up professors by name individually.

As a professor at UNCC, I would like to be able to see all reviews of myself from students at my university so that I can better understand what went well in certain semesters by comparing higher and lower ratings with the other collected metrics.

As a UNCC student, I want to be able to log in with an authenticator to ensure that all ratings are somewhat legitimate and my information is secure.

4.2 Feature List

- In-depth and detailed Course/Professor review creation
- Review Search filtering
 - By Department
 - By Course
 - By Professor
 - Etc.
- Third party authentication
- User friendly and aesthetically pleasing UI

5 User Tests

5.1 Test procedure

Note: testing team should not help participants unless they are completely stuck

1. Log in using Google Authentication
2. Create three professor ratings. Confirm that the information you submit is presented back to you on a resultant page.
3. Find where you are able to see all ratings. List out all the attributes of the **second** rating on the rating list.
4. Go to where you can search for a rating by first name, last name, subject, or course number and use them to search for a rating.
5. Go back to the all ratings page and open a specific rating.

5.2 User Test and Results

5.3 Conclusion

In retrospect, our team enjoyed working on this software project. We learned a great deal and feel great about the results our team produced. We feel that the skills learned in this project will help us in our future careers for both programming and group collaboration.

6 Lessons Learned

Regarding technological practices, our group learned to create a python web application using a flask framework. We also learned to implement sql-alchemy and connect to an existing SQL database. Lastly we learned how to implement a third party authentication tool and search filtering tool into our application.

Beyond technological skills, our group learned to complete a software project in a highly collaborative environment. Similar to real software projects in the field.

7 Future work

V2: Some future work for this project will include implementing our application in universities other than UNC Charlotte. Each University would have an instantiation of their own professor and course review database. We would need to implement a system where University officials could easily set up the application and have some customization options.

V3: Further, we would need to create an interface to manage and perform maintenance on the different instantiations of databases for our backend.

8 Appendices

8.1 Software Repository

[Github Repo](#)

[Google Drive](#)

8.2 WBS Tool

[Trello Board](#)

8.3 Meeting notes

3/30/23

Present: Ronnie Johnston, Dylan D'Eloia, Gabriel Van Dreel, Ian York

Activities:

- Discussed submission of Sprint 0 documents
 - Team should create a public git repository that has a documents folder
 - Decided that all sprint documents should be added to Github documents folder

To do:

- Finish designing UI
- Create Trello board
- Finish structuring Drive folder for sprint organization

4/4/23

Present: Ronnie Johnston, Ian York, Eric Chaves, Dylan D'Eloia

Activities:

- Discussed deliverables due with Sprint 1
 - Team should create ERD due April 12th
 - Need to keep figma UI up to date with current ideas
 - Scheduling standups

To do:

- Begin ERD
- Add to Trello
- Update Figma
- Schedule Standups

4/6/23

Present: Ronnie Johnston, Ian York, Dylan D'Eloia, Eric Chaves

Activities:

- Discussed current position in Sprint 1
 - Review ERD
 - Look into upcoming tasks in Sprint 2

To do:

- Review ERD
- Update Trello
- Review Figma
- Schedule future standups

4/8/23

Present: Ronnie Johnston, Ian York, Dylan D'Eloia, [Gabriel Van Dreef](#)

Activities:

- Review position within Sprint 1
 - Assess upcoming tasks

To do:

- Review ERD
- Update Trello
- Schedule future standups
- Push meeting docs to GitHub

4/11/23

Present : Ronnie Johnston, Ian York, Dylan D'Eloia, [Gabriel Van Dreef](#)

Activities:

- Overview of Sprint 2 deliverables
- Assign responsibilities for final report to members

To do:

- Begin work on report
- Finalize UI
- Finalize ERD
- Begin implementation

4/13/23

Present: Ronnie Johnston, Ian York, Dylan D'Eloia, Eric Chaves

Activities:

- Discussed position on Sprint 2 deliverables
- Discussed Github branching and project workflow

To do:

- Begin work on report
- Finalize UI, change as needed
- Continue implementation
- User Stories

4/15/23

Present: Ronnie Johnston, Ian York, Dylan D'Eloia, Eric Chaves, Gabriel Van Dreel

Activities:

- Discussed position on Sprint 2 deliverables
- Discussed developments of application

To do:

- Continue report
- Finalize UI, change as needed
- Continue implementation
- User Stories

4/18/23

Present: Ronnie Johnston, Ian York, Eric Chaves, Gabriel Van Dreel

Activities:

- Discussed upcoming deliverables for sprint 3
- Discussed needs of further development including google auth

To do:

- Continue adding to report
- Update trello
- Continue implementation, google auth, html
- Finish user stories

4/20/23

Present: Ronnie Johnston, Ian York, Eric Chaves, Dylan D'Eloia

Activities:

- Worked on fixing database and updating methods

To do:

- Update trello
- Continue implementations
- Work on user tests
- Discuss edits to layouts
- Discuss ongoing implementation needs
- Divide workload
- Discuss report

4/22/23

Present: Ronnie Johnston, Ian York, Eric Chaves, Gabriel Van Dreel, Dylan D'Eloia

Activities:

- Discussed needs for final report
- Discussed additional features to be implemented
- Delegated new features
- Discussed changes in existing features to make more user friendly

To do:

- Update trello
- Continue implementing existing and new features
- Continue creating user test
- Gather input on layouts (changes needed to support feature)
- Assess final report

4/25/23

Present: Ronnie Johnston, Ian York, Eric Chaves, Gabriel Van Dreel, Dylan D'Eloia

Activities:

- Discussed changing search feature to include all attributes
- Discussed adding plugin for list all ratings where table is interactive
- Discussed needs for final report
- Discussed user stories

To do:

- Finish implementation of all features
- Finalize home page to look appealing
- Finish final report
- Assess user stories to make sure all features are covered
- Check for errors in every function
- Finish user tests

4/27/23

Present: Ian York, Eric Chaves, Gabriel Van Dreel

Activities:

- Discuss merging branches of final features to main branch
- Final tweaks of specific features, such as search
- Discuss final report, user tests

- Review features

To do:

- Finalize home page
- Add graphics
- Review final report
- Finish user tests
- Check features for errors