Software Enginnering Fall 2023-2024
VALUNI Design Specifications

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1 Project Description

VALUNI is a platform where students have the opportunity to share their experiences and exchange knowledge and feedback regarding both professors and courses. It would play a vital role in helping students hold sufficient knowledge that could ease up the process of choosing classes and preparing for exams. Our objective is to create a safe, dependable and organized environment that allows students to express their opinions in an honest and respectful way. We aim to motivate students when rating or writing their reviews through anonymity, and at the same time having certain guidelines that must be followed when using VALUNI. This will not only assist study but also the overall University community including diverse facilities and professors.

2 Product Backlog

2.1 Functional Requirements

- **User Authentication**
  User login and verification that user is a university student

- **Rating Courses**

- **Writing out a review with Rating**
  When reviewing students have the option to write a review with the parameterized rating parameterized rating
  Rating of professors and courses on different parameters such as workload and leniency
- **Filtered Search on parameters**
  Students can filter out result or search for courses and professors based on parameters reporting reviews

- **Editing Reviews Admin (university) access to review data**
  University can access critical semester review analytics as well as overall analytics
- **Search for courses**
- **Search for professors**
- **Editing Reviews Admin (university) access to review data**
  University can access critical semester review analytics as well as overall analytics
- **Parameterized Rating**
  Description: Provide users with the ability to rate professors and courses based on specific parameters, such as clarity, engagement, and grading.
  Key Considerations: Parameterized rating system, customizable rating criteria, and clear guidance for users.
- **Reporting Reviews**
- **Admin university access to Review Data**

2.2 Non Functional Requirements

- **Fluid, Simple UI**
  Description: The user interface (UI) should be intuitive, easy to navigate, and responsive across various devices and screen sizes.
  Key Considerations: Minimalistic design, clear navigation, responsive layout, and consistent user experience.

- **Secure**
  Description: The website must ensure the security and privacy of user data, preventing unauthorized access or data breaches.
  Key Considerations: Use of HTTPS, encryption of sensitive data, secure authentication mechanisms, and regular security audits.

- **Auto-Removing Profanity on Reviews**
  Description: Implement a mechanism to automatically detect and filter out inappropriate language or profanity from user reviews.

Key Considerations: Use of profanity filters, machine learning algorithms, or predefined keyword lists to identify and remove offensive content.

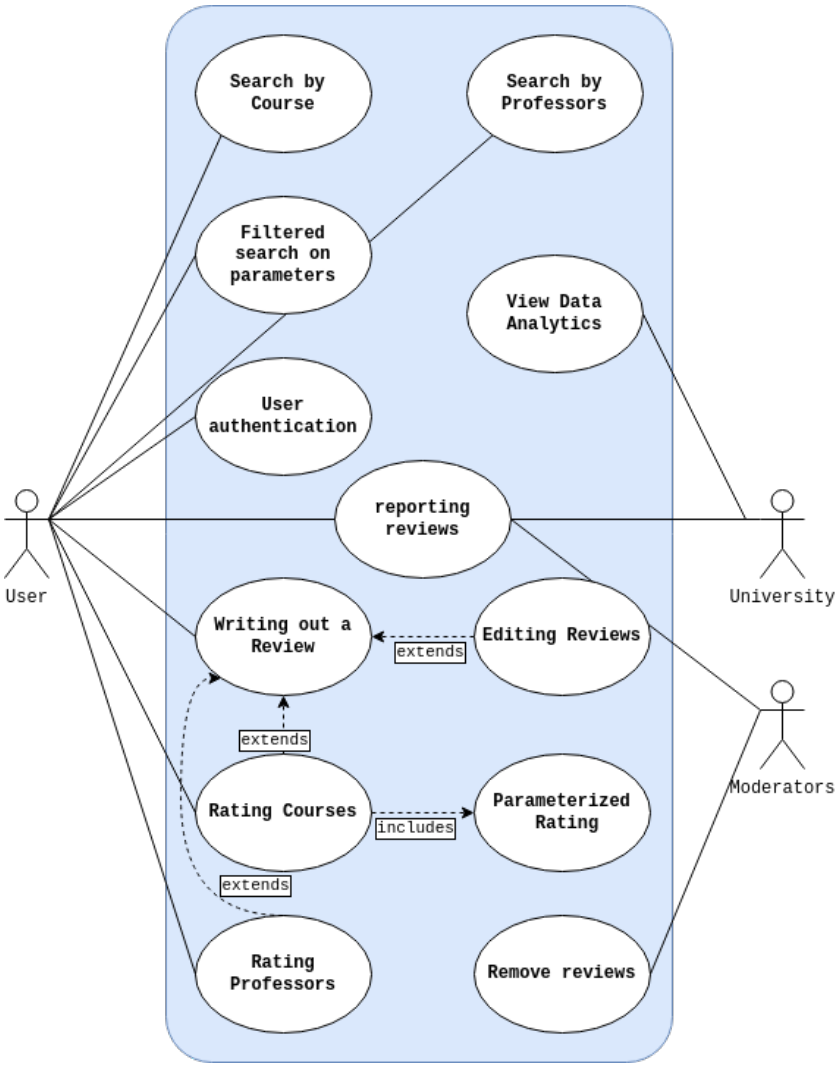
- **Prevent Review Bombing**
  Description: Implement measures to prevent or mitigate mass coordinated efforts to manipulate ratings, known as review bombing. .
  Key Considerations: Monitoring patterns of reviews, rate limiting, and implementing algorithms to detect and mitigate suspicious activities.

- **Customer Service (for Universities)**
  Description: Provide a support system for universities to address any concerns, disputes, or inquiries related to the professor rating platform.
  Key Considerations: Dedicated customer support channels, responsive communication, and a system for resolving issues.

- **Performance**
  Description: Ensure the website performs efficiently under normal and peak loads, providing a seamless user experience.
  Key Considerations: Load testing, performance optimization, content delivery network (CDN) usage, and efficient server-side processing.

- **Scalability**
  Description: Design the system to handle growth in terms of users, data, and transactions without a significant loss in performance.
  Key Considerations: Scalable architecture, cloud-based infrastructure, and load balancing to distribute traffic.

3 User Interface



Rating professors involves providing both a numerical score and an optional written review, each serving a distinct purpose. The numerical score, such as 3/5, offers a quick, quantitative summary of the overall experience.

In contrast, the written review provides a qualitative, detailed account of a student's personal experiences, offering insights such as the professor's teaching style and communication. Additionally, parameterized rating further refines the evaluation by allowing users to rate professors on specific criteria like clarity, flexibility, and engagement.

4 MVP requirements (Requirements to be Implemented)

- **User Authentication**
  Description: Users should be able to create accounts, log in, and log out to access personalized features and ensure the security of their data.
  Key Considerations: Secure password storage, email verification, and options for social media logins.

- **User Data Encryption**
  Description: Implement encryption mechanisms to protect sensitive user data, such as passwords and personal information.
  Key Considerations: Use of HTTPS, encryption standards like SSL/TLS, and secure storage practices.

- **Rating Courses**
  Description: Users should have the ability to provide ratings for specific courses, reflecting their experiences with the course content.
  Key Considerations: Course database, user-friendly rating interface, and averaging/ranking system.

- **Rating Professors**
  Description: Allow users to rate individual professors based on their teaching style, communication, and overall effectiveness.
  Key Considerations: Professor database, clear rating criteria, and the ability to view aggregated ratings.
- **Writing out a review with Rating**
  Description: Enable users to write detailed reviews along with their ratings, providing more context to their evaluations.
  Key Considerations: User-friendly review input form, character limits, and content moderation.
- **Parameterized Rating**
  Description: Provide users with the ability to rate professors and courses based on specific parameters, such as clarity, engagement, and grading.
  Key Considerations: Parameterized rating system, customizable rating criteria, and clear guidance for users.
- **Filtered Search on parameters**
  Students can filter out result or search for courses and professors based on parameters reporting reviews
- **Search for courses**
- **Search for professors**