CS319 – Object-Oriented Software Engineering

D1 Report

Section 3

Team 4 – FACID

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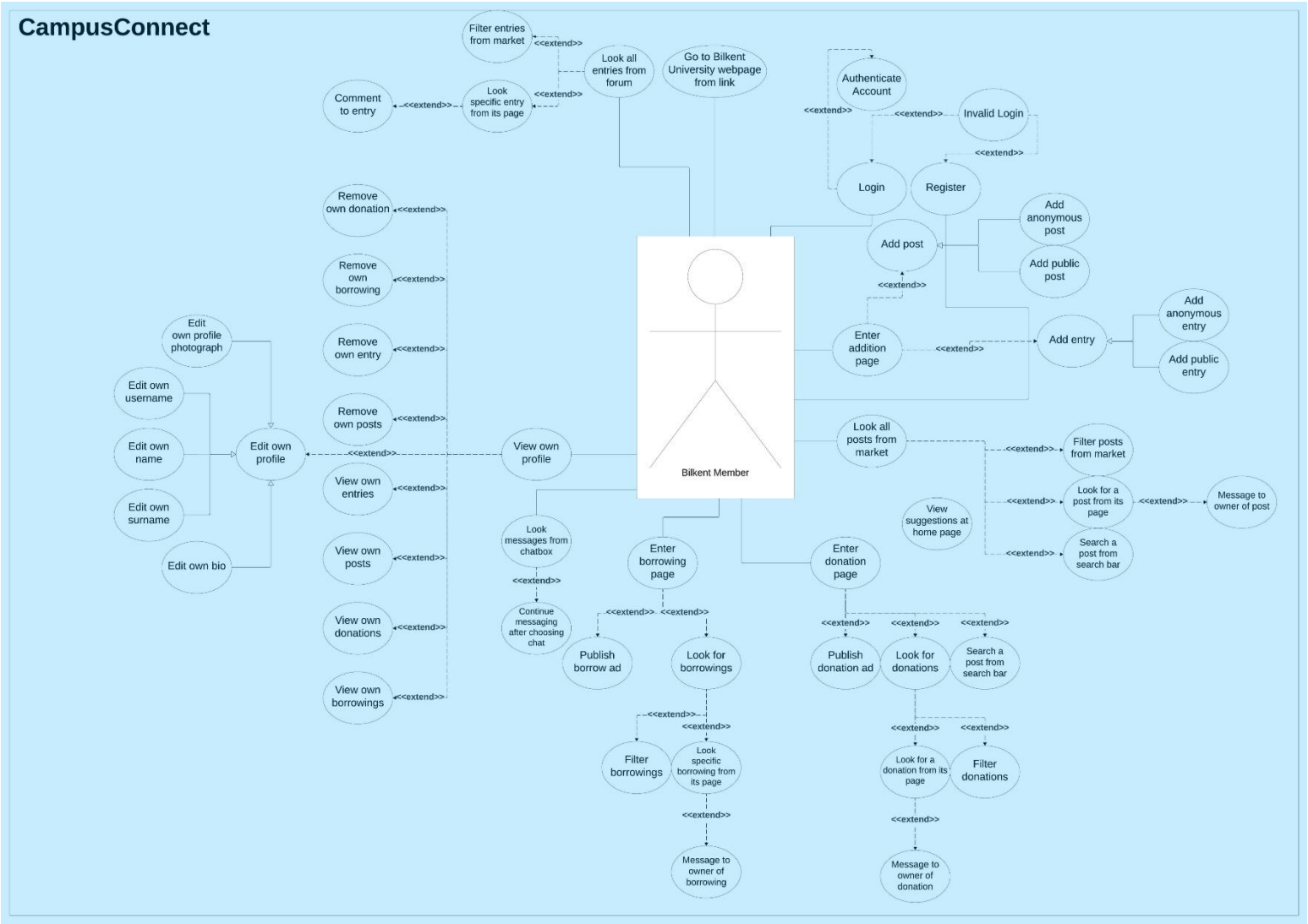
1)Use Case Diagram



2) Non-Functional Requirements

2.1) Performance

Performance is the heartbeat of CampusConnect, with every aspect meticulously tuned to ensure lightning-fast interactions. Our login and logout processes are designed to take less than 2 seconds, allowing users to access their accounts swiftly. Navigating between pages is a seamless experience, taking less than 2 seconds to transition effortlessly. Whether you're uploading a post or entry with images, we prioritize speed – pictures from our database to your screen in under 5 seconds and post creation in less than 2 seconds, even with photographs. In the background, the entire system data is dynamically backed up to ensure data integrity and reliability. The importance of such performance measures cannot be overstated. A rapid, responsive system enhances user satisfaction, engagement, and the overall success of our platform. With CampusConnect, every second counts in making your online campus experience exceptional.

These performance measures are vital to ensure that users have a smooth and efficient experience when using the CampusConnect platform. The speed of these actions directly impacts user engagement and the overall functionality of the website. Rapid performance is key to user satisfaction and success in providing an exceptional online campus experience.

2.2) Safety/Security

At CampusConnect, security and safety are paramount. We've implemented stringent measures to safeguard user data, ensuring that personal information is encrypted and stored securely within our database. Additionally, the app boasts robust authentication and authorization mechanisms, limiting access exclusively to individuals within the Bilkent University community. The importance of these security measures cannot be overstated. They are the foundation of user trust and confidence in our platform. As guardians of sensitive data, we prioritize the protection of personal information and access controls to ensure that CampusConnect remains a safe and secure digital space for our users, fostering trust, peace of mind, and a thriving online community.

2.3) Usability

Usability is a cornerstone of CampusConnect's design philosophy, and it holds immense importance in delivering an exceptional user experience. Our user interface is meticulously crafted to be intuitive, accessible, and responsive, catering to users of different abilities. We have focused on creating an easy-to-use and simple user interface that ensures a seamless experience. The app's compatibility with popular web browsers, including Chrome, Safari, and Opera, guarantees that users can access CampusConnect with ease. Additionally, we've chosen color tones that are easy on the human eye to prevent visual fatigue and ensure a pleasant reading experience. Our buttons are designed to be clear and user-friendly, streamlining interactions. By prioritizing usability, we aim to provide an accessible, enjoyable, and efficient platform for all users, promoting engagement and making CampusConnect a user's first choice.

2.4) Reliability

Reliability is at the core of CampusConnect, and its significance cannot be overstated. Our commitment to offering a dependable platform means that the app will be available 24/7, with minimal downtime reserved exclusively for essential maintenance. Furthermore, we've taken measures to ensure the system can recover gracefully from any unforeseen system failures, all without the loss of any critical data. We understand that reliability is the linchpin of user trust and satisfaction. It's the assurance of uninterrupted service, data integrity, and a seamless experience for our users. By prioritizing reliability, we aim to provide a platform that users can depend on, day in and day out, fostering a strong sense of trust and loyalty within our digital community.

3) Tech Stack

Front-End (Client Side):

- HTML
- Bootstrap
- CSS
- JavaScript

Back-End (Server Side):

- Django
- Django Rest Framework

Database:

- MySQL
- Google Firebase (Pyrebase4 Framework)

Server Infrastructure:

- Amazon Web Services (EC2)

Version Control and DevOps Tools

- Git