University of British Columbia, Vancouver
Department of Computer Science

CPSC 304 Project Cover Page

Milestone #: ____1____

Date: _____Oct 3_____

Group Number: ____119_____

Name	Student Number	CS Alias (Userid)	Preferred E-mail Address
Stuart Chen	48414957	r4v4j	stuartcc6@gmail.com
Allan Xing	28532901	p7i4r	allanx01@students.cs.ubc.ca
Eric Fu	57440844	y2c8w	ericfu55@student.ubc.ca

By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.)

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia

University of British Columbia, Vancouver
Department of Computer Science

Domain:

Our project is in the domain of social media: users can make accounts, share posts, and interact with each others' posts in meaningful ways. The project will aim to address and map the interactions between different users by providing a platform for people to share their thoughts, images, and videos.

How the database models the domain:

- The database will model the moving parts of the platform: namely, the users, their posts, and their interactions such as likes or comments. It will be able to store multimedia types of data such as videos and images for use in a user's post. While the main focus of the project is to facilitate these posts, we will also implement typical aspects of social media such as chatting, following, and using hashtags.
- E.g. A user's account makes a post: We can see a "creates" relationship between the two
    - We can also see that posts will have a totality relationship with users: every post must be "created" by a single account

Database Specifications:

- The database should store Accounts and Posts, and it should be able to find certain Accounts or Posts based on their accountID or postID respectively.
- The database should be able to keep track and store various types of Posts, including VideoPosts, ImagePosts, and TextPosts; and Posts should also have an attribute that declares whether they are paid advertisements.
- The database should also be able to store encrypted login information for authentication of a user on the website; people using the database should be able to match a single Login combination to a single Account.
- The database should be able to identify the number of likes a post has received, by counting the number of accounts who engage in the "likes" relationship between Posts and Accounts.
- The database should be able to uniquely identify weak entities such as a Message or Comment, using their partial key (a precise timestamp) combined with their owner's keys and the respective keys of the parent chat or post.
- The database should relate certain Accounts to certain Permissions, which is a moderation tool for keeping track of blocked/banned users as well as a tool to give Subscribed accounts premium benefits.

Description of the application platform:

The project will use PostgreSQL for the database. Also, we will use Node.JS, Express.js, for the backend and React.JS, JQuery, HTML / Tailwind CSS for the frontend. For libraries, we will use Passport.js and Bcrypt for the authentication system, along with Socket.io for chat broadcasting, and Stripe for payments.

University of British Columbia, Vancouver
Department of Computer Science