Database for facebook

## Project Overview

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|  | This project is intended to develop a sample database to store and retrieve data for Facebook.  Why Facebook?  Facebook is the leading social media, advertising, gaming and social networking service launched in the year 2004 by Mark Zuckerberg and his fellow [Harvard College](https://en.wikipedia.org/wiki/Harvard_College) roommates [Eduardo Saverin](https://en.wikipedia.org/wiki/Eduardo_Saverin), [Andrew McCollum](https://en.wikipedia.org/wiki/Andrew_McCollum), [Dustin Moskovitz](https://en.wikipedia.org/wiki/Dustin_Moskovitz) and [Chris Hughes](https://en.wikipedia.org/wiki/Chris_Hughes). The company based in Menlo Park, California grew from a limited membership platform for Harvard students to a global phenomenon in less than a decade and represents the true power of technology, data and communication. Of late, Facebook has run into trouble due to misuse of data and promised to make amends to ensure privacy and avoid future mishaps. Nevertheless, the main source of revenue is digital advertisements and the company leaves no stone unturned to keep their customers happy. In fact, the customers can perform thorough data analysis and track performance to measure and manage the ads. Also, being a largely successful and popular social networking site, Facebook’s mission is to help people build a community, share content, express views and opinions and stay in touch with friends, family, current events and news.  For us, the intriguing and unorthodox structure as well as the judicious use of data analytics tools invoked an interest in their database model. The company connects its users using an array of open source software to enable social networking and data intelligence. We plan to make use of the open source data available to create the database required for the project. |

## Team Details

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|  | Team members are - Megha R Rao (SJSU Id: 013709488), Rajasree Rajendran (SJSU Id: 013774358) and Sai Chaitanya Tolem (SJSU Id: 013008788). |

## Project Description

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|  | As part of our project, we would like to create a sample database for Facebook, which will store all the user’s activity and perform psychographic segmentation. Psychographics is a qualitative methodology applied to the study of personality, values, opinions, attitudes, interests, and lifestyles. This will give users a better idea on how to use that information to engage more connections or for getting more people following his group/page or ads, however, without compromising privacy or personal information.  Any individual who claims to be at least 13 years of age can become a registered member of Facebook, subject to minor variations due to local laws. To create a new account, the individual must provide a unique password, mobile number or email address along with first name, last name, date of birth and gender. We could assign a surrogate key for the password-mobile number or password – email address combination. It is not possible to have two accounts with the same mobile number or the same email address. Users can access Facebook through a variety of devices with internet connectivity such as smartphones, laptops, desktop computers and tablets. Hence, multiple logins are allowed.  After registering, members can create a customized profile with pictures such as profile photo and cover photo, and details such as Education, occupation, family members, interests, place of residence and so on. Users can post new pictures, videos, text messages, links and status updates, or share, save, like or comment on the same. A newer addition is the diversification of the like button with emoticons representing emotions such as Love, Sad, Angry, Wow etc. User activity is recorded in the user profile and displayed in their timeline and activity tab.  Users can also view other profiles and send messages based on the privacy and contact settings of the other user. An important option is to add “friends” when they are interested in staying in contact with another user. Friends can freely exchange messages, view one another’s pictures, posts and profile details and like, share or comment the posts, all subject to profile settings. Additionally, friends can be categorized and grouped into lists. For example, friends can be listed under close friends or acquaintances, and users can set category-specific settings. Furthermore, user may join common-interest groups and perform all the aforementioned activities such as posting, commenting etc. in the group page. Users can also report unpleasant posts and block users.  Users can advertise their products along with picture, price and location details in Fb marketplace. Fb app center lets users play games and discover apps. Games can be free or paid, and can be single user or multi-user. Facebook also lets users create events with the event details. Confirmed invitees become participants. In the event of a disaster, people can ask the current situation of their friends or mark themselves safe or seek help through the portal. Fb messenger is the instant messaging tool that lets users communicate and share posts and links privately. Last but not the least, Advertisements are the main source of revenue for the company. Fb ad manager lets users tailor their campaign by setting the objectives, audience, platforms, format and budget before placing an order. Once the ad is launched, their impact can be analyzed and measured using in-built tools to track performance. Facebook IQ provides useful insights to increase the effectiveness and outreach of ads. |

## Goal of the Project

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|  | 1. Create tables and entities to accommodate the company’s data. 2. Perform routine activities such as adding a new friend, displaying friend list and so on. 3. Predict user preferences and provide recommended links. This will enable us to personalize the Newsfeed for the user based on his/her likes/interests. 4. Delete any reported user or shadow profile from the system. 5. View and count the number of invitees and participants to an event. 6. Sort games to show free and least expensive games. Sort products and filter contents in Fb marketplace 7. Enable user to view the advertisement package details and data analytics tools. |

## Future Scope

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|  | 1. To provide digital wellness, by snoozing the Newsfeed after a long period of continuous usage. 2. To help user find friends/pages based on some certain search criteria. 3. Enable users to create user-specific views listing similar product details in one screen before deciding to buy the product. Populate statistics as per user needs. 4. To reduce spreading of false news and misconceptions, by removing accounts that violates Facebook policies. 5. To ensure security, by adhering to stricter login/logoff rules or by verifying identity of the user every time he/she logs in. |

## High-level Deadline/Schedule

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|  | |  |  |  | | --- | --- | --- | |  | Mode of submission | Deadline / Schedule | | Prototype - Entity relationship (ER) diagram | Canvas or direct consultation | Ideally, November last week. At most by December 10,2018 | | Written Report | Canvas | December 10, 2018 | | Script files | Canvas | December 10, 2018 | |