Assignment 3 Concept (CC SP3 24)

For assignment 3, the research that I have performed for the previous assignments has given me insight to consider what is realistic, and achievable within the constraints of the services, time and resources available. As such, I wish to create a social media web app that allows users to create posts to their wall, which is displayed as a feed to users that have added them as a friend. I would like to assess the possibility of users being able to modify their pages and customize them to their personal tastes, possibly being able to edit the colour patterns, or background images.

Users will be able to log in using their email address, or other credentials through API implementation, and access the feed, which displays a list of relevant posts made by other users they are friends with. They can navigate to another user’s wall, which displays their information and posts they have made, as well as their own wall where they are shown a similar view, but with fields to create a post, or edit their wall or profile information.

Infrastructure:

* The app will be developed in Python using Flask as the WSGI and boto3 to integrate with AWS services.
* The front end will include HTML, CSS, and some JavaScript.
* The Cloud Services that may be used include:
  + Elastic Beanstalk to host the app and perform resource allocation management for the various services.
  + Services included as part of the Elastic Beanstalk instances include EC2 for computation, S3 for file storage, DynamoDB as a NoSQL database
  + Lambda for serverless functions.
  + API gateway for managing API integration.
* Some possible APIs include:
  + Facebook Graph API which can be used to return friends of the current user, permitting they have signed in using their Facebook account, as well as other functions.
  + Spotify Web API which provides a host of functions.
  + Twitter API to integrate with Twitter posts made by the user, or users they follow.

This is not a final concept of the app, though, which is likely to evolve as the development process progresses. Implementing the ability for a user to customize their wall will be a significant feature, as well as integration with third-party api’s.