Elizabeth Trost
Due date: 12/19/2021
Assignment: CS 470 Final Reflection
YouTube Presentation Link: https://www.youtube.com/watch?v=CbcJwZAF8X4

The course, CS470, has allowed me to further develop my knowledge of developing a full stack application, practice with containerization utilizing the platform Docker, and complete instruction on how to move a full stack application to the cloud. I was given hands on practice employing Amazon Web Services specifically their Amazon Simple Storage Service (S3), Amazon EC2, AWS Lambda, Amazon API Gateway, and Amazon DynamoDB services. The knowledge I have gained from this course will be invaluable in my chosen career field of computer science as more and more companies are choosing to migrate their applications to the cloud. My strengths as a software developer are my willingness to work as a team, my attention to detail, self-sufficient, curious, and ambious. I feel prepared to take on DevOps and SysOps roles upon graduation.

At the close of CS470 I have gained knowledge on the how to migrate and secure a full stack application to the cloud and the importance of being aware of vendor lock. To handle both scale and error specific to AWS I would utilize AWS Step Functions which supports function error handling. To predict the cost of a migration to the cloud I would need to assess the development team needed, which cloud provider will be utilized, which model will need to be used to migrate the application to the cloud, the cost of data storage, and post maintenance and development required. When comparing the cost predictability of serverless versus containers, containers wins. Although serverless is generally the cheaper option it is also the least predictable of the two.

When choosing factors in plans for expansion one would need to consider the cost, amount of data that can be stored, and the scalability of the application. Elasticity allows you to obtain and discard resources as you need to. This gives the ability to scale up and down with little down time. The pay-for-service option allows for you to pay for resources and services based on what you use. This means you are not paying for services/resources you are not using.