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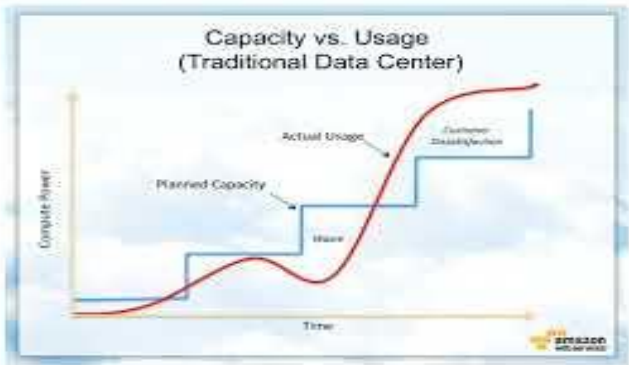
CS 470 Final Reflection

https://youtu.be/s5m_S3rqb_M



Cloud-Based Development Principles

- **Elasticity:** The serverless cloud scales with your application's traffic and is ready to allocate resources as needed, with backups ready when part of the service fails.
- **Pay-for-use model:** You pay only for what you use, not a flat rate for a reserved amount of space and bandwidth.



The graph illustrates the capacity vs. usage model in a traditional data center. The y-axis is labeled 'Compute Power' and the x-axis is 'Time'. A blue step function represents 'Planned Capacity', which increases in discrete steps. A red line represents 'Actual Usage', which fluctuates over time. When the actual usage exceeds the planned capacity, a red line labeled 'Customer Dissatisfaction' rises sharply, indicating a negative impact on the user experience. The graph is titled 'Capacity vs. Usage (Traditional Data Center)'.

In this class, we learned about the concept of cloud computing and hosting services, and stepped through the process of converting an Angular website and uploading it to AWS hosting. These concepts are a modern development that is improving the effectiveness, cost, and quality of APIs and will be an important skill and knowledge to have in the current market.

My strengths as a software developer include my ability to visualize concepts, confidence and willingness to learn new things, as well as my foresight in planning a project and experience in a variety of design and technical skills.

The types of jobs I am now prepared to work in or enter the field of because of my studies in this degree include full-stack web development, system analysis, UI/UX research or design, project management, game design and development, 3D graphics, testing, security, software quality assurance, data analysis and visualization, database design or maintenance, and software engineering.

The serverless cloud has a lot of advantages over local hosting. The first thing to note is the ease of scaling an application and its avoidance of disruptions and errors. Because the developer does not need to maintain a server and a whole datacenter of servers is ready to do the work needed to run the application, we do not need to worry about downtime for upgrades or the server crashing. The cost is also a big thing to consider – cloud applications only cost the space and bandwidth that they use. Instead of paying a flat rate and spending money on extra unused space, the rate changes depending on how much or how little it uses. Containers may be more predictable, but typically a serverless application will be more cost-effective. We won't need to worry too much about growth when using serverless hosting, besides budgeting and adjusting the throttle limits and alerts set on the application to help adhere to that budget. Growth is supported by the service, so we can focus more on the quality of the product and our customer service. If the application does not need 24-7 access, we can consider just using containers that are only charged for when turned on.

