

CS 470 Final Reflection
<https://youtu.be/9dQTY8CUTNA>

During this course, we have focused on learning the key concepts for migrating websites being hosted on our own machine to a cloud service. We have learned the many types of online hosting and have learned when some may be suited better than others. Since more and more companies at one point or another may use cloud services, learning about these specific concepts will allow us to be more marketable as a professional in the IT or software industry. We are now coming to the end of our student career and at this point, it's time to recognize some of our own strengths and weaknesses as an individual in this space. I believe one of my strengths in this space is communicating key concepts to others that may not have as much technical experience in the space. I've had quite a bit of teaching experience before this Computer Science program but I think learning the ins and outs of concepts and being able to present them to a group of people is a bit easier for myself than others. Knowing when to break something down to a simpler form is a task in itself that not everyone may recognize needs to be done. I feel like I have also gotten a lot of programming experience through this course. Although I don't feel like I can say I have mastered it, I feel as though I have built more confidence in understanding the basic concepts of general languages. I can throw together simple programs but if I were to spend more time mastering one language over others. I would like to spend more after completing this program in mastering skills further and possibly with certificates. Some jobs I can see myself applying for are some basic programming positions where I can further increase my knowledge and ideally moving toward either a product manager or some form of management in the software space. I think with my ability to problem solve and communicate well, those would be

the positions I'm more interested in. I would also consider forms of IT positions that involve general maintenance.

With any growth, scaling is ultimately the goal as we want more people to use our application in any capacity. Ideally, organizations should be predicting how fast they are able to scale with efforts they are putting into scaling the business or application. Those efforts should be placed into a chart of some form to plan for predictive growth. While growing, errors will need to be handled and fixed with the growth and often we should be able to use monitoring applications that will help us track any inefficiencies in the applications or crashes that may be curbing growth. During this time of scaling, those applications will be more important than in some of the first initial phases of online/cloud migration. Overtime, we should be able to view and track the history that will provide us projections that we can mathematically come to. They may not always be accurate but it may give us an idea of costs. With serverless, we do not necessarily need to predict the cost but we are usually responding to the growth and will be paying whatever the cost is. Using containers is more likely a better way to predict costs since using containers will have somewhat of a cap on costs since the resources in containerization will only allow so much traffic. Although containerization will be better to use for predicting costs, it may lead to waste of resources that aren't being used since we often need to have more resources available for potential traffic that may or may not be there.

Although the goal for many businesses is to grow, its important to think about the current situation and if it is currently ideal for growing. For example, one consideration is if the current set up allows for easy scaling. As we discussed before, many cloud types allow for easier scaling but being able to scale or planning to scale doesn't mean the demand for your product will

always be there. Before automatically scaling, you'll want to be sure the demand for your product is high enough to continue to grow. The budget will probably be another one. The business itself should be producing at least enough money for maintenance of the application or more if profits are needed to scale. Oftentimes, although scaling can happen, people may forget that if they are not making a profit, scaling can often make things a bit more expensive at least in the short run. In many cases, businesses spend more money to scale before they actually get any kind of money back. It needs to be thought of and decided if the current business is worth investing in and this is the same for technology and businesses in the tech space. That last part really speaks to the elasticity and pay-for service types of services that are offered through cloud services. As we talked about, some businesses need to consider whether or not they want to invest more resources into their current setup, cloud services with pay-for-service types help mitigate the risk of investing capital before launch by allowing the businesses to pay based on how many resources they are using. This allows the smaller entrepreneurs and local businesses to get into the space without so much overhead. They still have some considerations to think of when it comes to growing but at least one of them is being able to worry less about some parts such as the background infrastructure.