Picking the Right Cloud Provider for Your Application - Part 1

This lesson discusses picking the right cloud platform to host your app.

We'll cover the following

Overview

In the introductory lesson of this course, we discussed why we should deploy our application on the cloud and the different cloud providers in the industry that offer cloud computing services catering to different infrastructure and technology requirements of the businesses.

We have both the big players and the comparatively smaller ones that focus on a specific niche with their unique technology offerings and pricing models.

In this lesson, we will go through the factors that we should have in mind when researching to pick the right cloud provider to host our application.

Business use case

By business use case, I mean the type of application or the service you intend to deploy on the cloud. There are several things associated with this. Let's discuss them one by one.

Does the cloud provider already have a customer on board similar to your business?

This is a very important factor in making up your mind to pick a certain cloud provider. For instance, say you need to deploy an augmented reality game like

Pokemon Go, naturally you would want it to blow up just the same. This gives *Google Cloud* an edge up in your research because the *GCP* team has already scaled a service like yours to the moon and is well aware of the nitty-gritty and domain-specific issues related to it. Similarly, *Fortnite* has made it big running on *AWS*.

These kinds of success stories prove that your business won't face any sort of *performance, security, scalability, or high-availability* issues when the service is subjected to a heavy traffic load on these respective platforms.

It's always a good idea to go through the existing customers of cloud vendors and read about their experiences. You can check out the customers of a cloud platform on their website. Click here to view *Google Cloud* customers.

Also, read the engineering blogs of respective businesses to understand what they have to say about their experience with a certain cloud provider, the technological challenges they faced running their service on a certain platform, and so on.

Be thorough on the technology requirements and the resources you have

If you do not want to be overwhelmed with the range of technology offerings and different pricing models cloud vendors offer when you open their website, you need to be crystal clear about what you want.

There is no workaround for this.

Do the math on how much you are willing to invest in the cloud infrastructure required to run your app and ascertain if you have the required resources.

Run a rough estimate of the deployment pricing via the price calculators offered by these vendors. Here are the price calculators of *Google Cloud, AWS*, and *Microsoft Azure.*

Before deploying your app, make sure you are ok with the pricing model and that things fit well in your budget.

Technology offerings of the cloud vendor in context to your use case

It is pretty obvious that the cloud provider should have an end-to-end technology

offering for running our service. Also, the hardware and the software they provide

should be state-of-the-art, secure, and continually upgraded. Nobody wants to run their service on archaic infrastructure.

_What do I mean by an end-to-end technology offering?

Let's say you pick a _ Database as a Service (DBaaS)_ to store data for your online service. Everything appears to be good. However, when your online service starts gaining traction, the log management, monitoring, disaster recovery, and other similar additional cloud services related to *DBaaS* let you down. You begin to feel the technological limitations of the platform. These limitations are a hurdle to your efficiency. It doesn't matter how good their *DBaaS* is. If you cannot monitor *DB logs* efficiently, using their service is pretty pointless.

Another thing to consider is what if you decide to transition your data to a different database solution, or let's say you want to move out of the cloud entirely and deploy your service on another cloud platform or on-prem. Does the vendor let you do that seamlessly?

Finally, let's assume the database service and the end-to-end infrastructure stack are top-notch. The service is running smoothly, but now you need to implement machine learning on your data either for analytics or to pull out specific information from petabytes of images that you have.

Here is where state-of-the-art technology offerings, continual upgrade of the infrastructure, and staying ahead of the curve matters. A good cloud provider should be able to set up a machine learning data analytics for you smoothly.

Ultimately, you should think ahead about what additional products and technologies, besides the core product, you would need in the future to grow your business, and ask yourself "does the cloud provider fulfill all those requirements?" before you pick the right service.

Now, you may think: how can I predict everything I'll need to run my service upfront?

We'll discuss this in the next lesson.