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Assignment 1

To compare the cloud computing platforms of Azure, GCP and AWS, we shall focus on three distinct points of ease of programming, the features they offer, and the cost associated with using each service. Then I shall offer my opinion on which platform I would use for a major deployment and why.

Ease of programming and Features

AWS: AWS has the advantage of age and experience, since it is the earliest of these three major platforms. With regards to its ease of programming, its advantages include the fact that it has SDK's available for a vast array of programming languages, which helps it to be seamlessly integrated into your application. This can however also be seen as a hindrance for AWS's ease of programming. AWS also offers a large number store and computing services, such as s3 buckets, and EC2 servers. For a novice cloud user, AWS can be quite intimidating to get started with due to the complexity of navigating through such large amounts of options.

GCP: GCP is well suited for products that are related to machine learning due to its notable data analytical tools integrated into its development services, such as BigQuery. It also offers Google Kubernetes Engine (GKE) as a feature that is seamlessly integrated with your development process. This way, GCP handles the containerization and scaling of these containers depending on the size of your application. The downside of developing on GCP is its smaller community, which means less community support.

AZURE: Azure has an upper hand over the GCP and AWs due to the considerable coverage of Microsoft products in the professional sector. Azure is therefore well integrated in these services, such as VS code. A downside of programming on Azure is the difficulty in debugging. Even in this assignment, Azure's error messages are quite challenging to sift through and not very human readable

Cost:

All three platforms offer pay-as-you-go pricing models. However there are some minor differences. AWS is suited for environments with predictable behaviors due to its reserved instances, long with a 12-month free tier for new customers which is helpful for novice cloud users. GCP offers flexible pricing for VM's so you can fine tune your VM cost to your exact need. Azure is integrated into Microsoft's already present foothold in the professional industry,

so customers can leverage their existing Microsoft licensing agreements to get more favorable pricing for Azure services.

What Would I Use:

If I had to pick one platform for developing a major project, it would be GCP. It has the sufficient amount of tools needed to deploy any project on. Its services are not as broad as AWS and well integrated with other enterprise applications like Azure. However, this saves it from being an overly complex platform, and makes it easier to navigate and develop on, especially as a novice cloud user. Additionally, its variable pricing model would better suit me, assuming I am not working in a professional enterprise environment.