**Reflection Paper: Jim Bruning**

Throughout this course, I've had the opportunity to work extensively with both Google Cloud Platform (GCP) and Amazon Web Services (AWS), exploring their tools for application development, data management, and machine learning. I’ve been able to have valuable insights into the strengths, weaknesses, and potential applications of these leading cloud platforms.

**Advantages and Areas for Improvement**

A notable benefit that I noticed in both GCP and AWS is their extensive service portfolio. A wide range of tools supporting the disciplines of computation, storage, databases, analytics, and machine learning are available on each platform. Developers are able to handle a variety of project requirements because to this extensive array of alternatives.

Navigating through this multitude of options, though, can occasionally feel overwhelming. Improved discoverability features and more simplified instructions would be beneficial for both AWS and GCP, in my opinion, especially for users who are unfamiliar with cloud systems. This would make it easier for users to determine which tools are most suited for a given set of use cases.

**Technological Points to Remember**

I'm eager to learn more about the expanding serverless computing trend in the future on both platforms. Services with the potential to simplify application development, save operational overhead, and provide flexible pricing models include GCP Cloud Functions and AWS Lambda. To create scalable and reliable cloud-native apps, further research into containerization and orchestration technologies like Kubernetes would be helpful.

**Peer Review, Dissimilarities, and Similarities**

Weekly conversations with my colleagues proved to be really beneficial. It introduced me to different methods and design decisions for comparable jobs. Notably, I found that, in comparison to AWS, GCP frequently offers a more tightly integrated user experience across all of its services. On the other hand, AWS usually provides more precise control and flexibility.   
My work has greatly improved as a result of the instructor's and my peers' feedback. I've specifically implemented stronger IAM policies and encryption methods as a result of recommendations for security best practices. Moreover, suggestions for effective data modeling in BigQuery and Redshift enabled me to save expenses and maximize query performance.

**In summary**

My grasp of the foundations of cloud computing has strengthened as a result of this course, and my ability to collaborate with two significant cloud providers has expanded. My confidence in developing and implementing cloud-based solutions has greatly increased as a result of the difficulties and insights I've learned from the weekly demonstration assignments. I can't wait to use these abilities in further projects and stay up to date with how quickly this industry is developing.