[**Assignment:**](https://durhamcollege.desire2learn.com/d2l/lms/dropbox/user/folders_list.d2l?ou=567631) **Cloud Computing Project Assessment**

**Course name: CLCP-1100-03**

**Student name: Kunal**

**Student id: 100974945**

**Date: 2024/13/12**

**Professor: Husni Luthfee**

**Cloud Computing Project Assessment**

**Link to the Project:**

[**https://github.com/kunal09-18/cloud-computing-project.git**](https://github.com/kunal09-18/cloud-computing-project.git)

**1. Why I Selected This Project?**

The reason I selected this project was to gain hands-on experience in cloud computing, particularly in deploying scalable infrastructures and automating the process using tools like Terraform. The project allowed me to apply concepts from cloud platforms (AWS, Azure) to a real-world problem, where I could leverage cloud services to improve efficiency and manageability.

**2. What I Learned from Creating This Project?**

* **Cloud Platforms**: Gained deep knowledge of working with AWS (or other platforms like Azure, GCP), including deploying EC2 instances, configuring databases, and setting up networking.
* **Automation**: Learned how to use Infrastructure as Code (IaC) tools such as Terraform to automate cloud infrastructure deployment.
* **Security Best Practices**: Focused on implementing security protocols such as encryption, secure access control, and key management.
* **Scalability**: Built systems that scale automatically using services like AWS Auto Scaling and Load Balancers.

**3. What Would You Do Differently if You Could Start Again?**

* **Planning**: I would spend more time in the planning phase, specifically in designing cloud architecture with a more detailed approach.
* **CI/CD Integration**: I would integrate a continuous integration and continuous deployment (CI/CD) pipeline from the outset, using tools like GitHub Actions or Jenkins.
* **Cost Optimization**: I would focus more on optimizing costs using features like spot instances or reserved instances to reduce overall cloud spending.

#### **4. Did This Project Spur Interests in Other Domains?**

Yes, it does in several areas:

* **Machine Learning**: I realized how cloud platforms can be used for training AI models at scale.
* **DevOps**: This project exposed me to DevOps practices, especially around automation, monitoring, and improving deployment pipelines.
* **Edge Computing**: The need for faster data processing led me to explore edge computing solutions to reduce latency.

#### **5. Would You Undertake This Project Again?**

Yes, I would. The project helped me improve my cloud infrastructure skills, and there's always room for optimization. Additionally, it provided a great foundation for exploring emerging cloud technologies, and I am eager to enhance and scale it further in the future.

**Conclusion**

The project on cloud computing has been a priceless educational opportunity. I was able to work on a real-world issue while learning useful skills and insights about cloud technologies. I want to keep learning more about cloud solutions and developing my abilities in related domains like DevOps and machine learning.