CSE 546 — Project 2 Individual Report

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Implementation of Different Tasks:

- **Application design and work distribution:** Sat with the team to understand the project requirements, design the application's architecture, and compartmentalize the work equally.

- **Setting up IAM:** Created IAM roles for all team members to access AWS without root user access, as it is the best practice to follow. Created a user role for the S3 bucket to send event trigger notifications to the SQS queue. Create a JSON policy so that the S3 can assume this role.

- **Setting up SQS queue:** Created an SQS queue where the event notifications can be pushed whenever a new video is uploaded to the input S3 bucket. Attached Json policies that allow it to receive the mentioned notifications from the S3 bucket.

- **Setting up the EC2:** Launched an EC2 instance with Linux architecture and Ubuntu platform. The instance type chose was t2.large to be able to support the installation and setup of the OpenStack

- **Setting up OpenStack:** Helped the team launch and configure OpenStack installation with the right network topology.

- **Testing and deployment:** Helped the team debug networking issues during the OpenStack cloud setup and the deployment of the python script that monitors the s3 buckets and invokes the lambda function.

Major Learnings:

- Understood IAM, S3, and Lambda in-depth.
- Use of AWS Console and CLI for working with DynamoDB.
- Use of AWS SDK for Python application development.
- Understood how to set up and install OpenStack on an EC2 instance.
- Got an in-depth understanding of the parallels between AWS and OpenStack.
- Working efficiently both independently and as a team.