Hybrid and Multi-Cloud Data Replication Strategy – Student Template

Instructions:

In your group, complete the sections below to design a data replication strategy you’ve chosen for your hybrid or multi-cloud scenario. Be prepared to present your solution to the class.

# Scenario Summary:

Briefly summarize your scenario (e.g., syncing financial data from AWS to Azure for real-time analytics).

# Replication Strategy Design

## 1. Data Types and Sensitivity

What type of data are you replicating? (e.g., structured like database rows, unstructured like images, logs, or files. Is it sensitive like PII or HIPAA data?)

## 2. Replication Requirements

Specify the replication frequency (real-time, hourly, daily). Is the replication one-way or bidirectional? What are your RPO and RTO targets?

## 3. Tools and Services

List tools used for replication and processing (e.g., AWS DMS, Azure Data Factory, Kafka, S3, Synapse).

## 4. Architecture Overview

Describe the high-level architecture: Where is the data coming from? Where is it going? Include considerations for security, latency, and network design.

Use the space below to sketch or describe your architecture diagram.

## 5. Operational Considerations

How will replication be monitored? What happens in case of failure? How will data consistency be validated?

## Presentation Notes (Optional)

List the 3–4 key points your team will cover during the presentation.