

### Part 1:

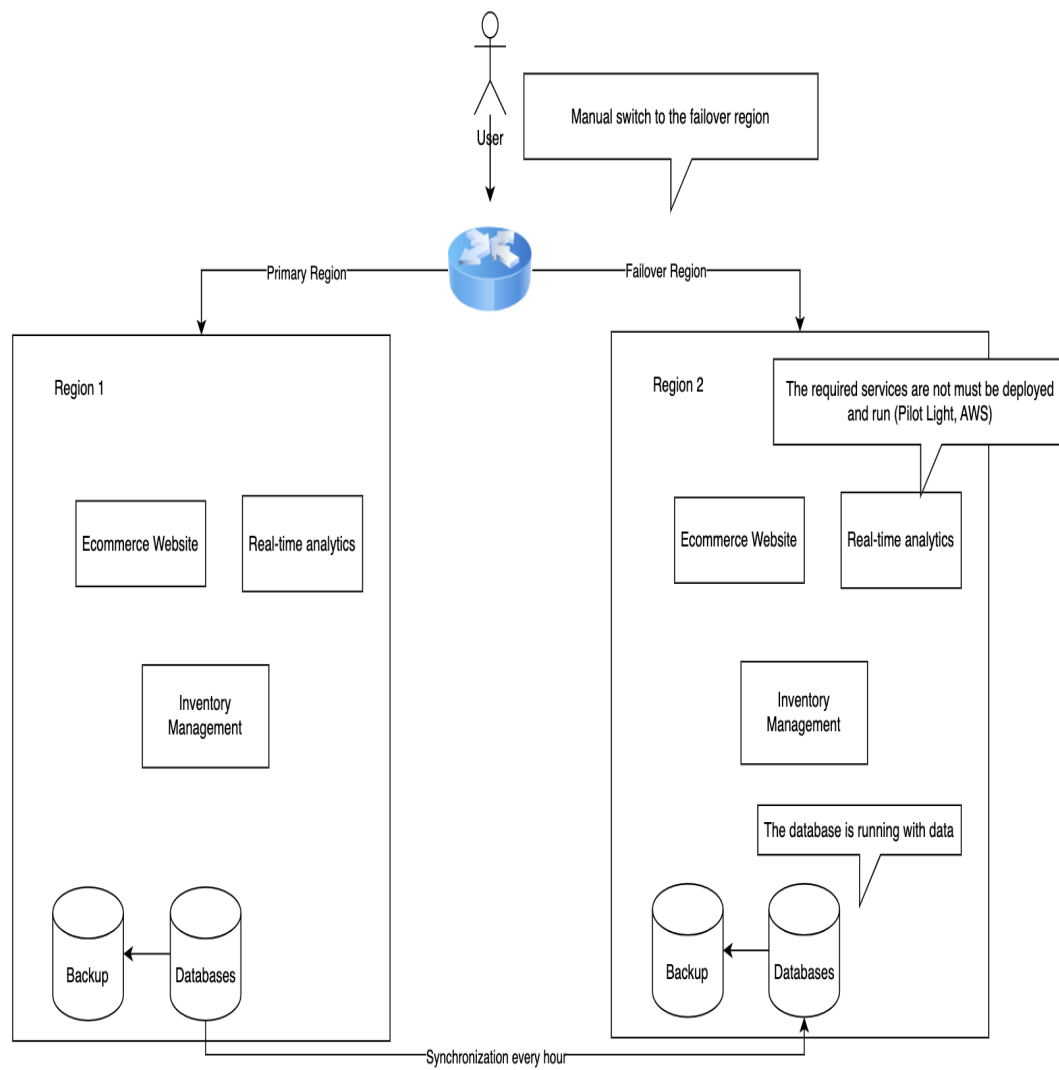
Read Opara-Martins et al (2014) and Morrow et al (2021) and answer the following questions:

1. What are some of the main vendor lock-in issues the authors identify? How would you mitigate them?
  - a. Vendors offer proprietary solutions, for example, AWS Fargate for container orchestration, API gateways, and databases which are not interoperable. This leads to the clients having large efforts and costs to migrate to another vendor.
  - b. The complexity to create policies must also be created to securely migrate data.
  - c. Business challenges, such as using a certain vendor as they have more leverage because of the large effort to migrate to another vendor when the contractual terms (Price) change.
2. What are some of the security concerns with the modern cloud? How can these be mitigated?
  - a. Shared Responsibility Model in Cloud Computing - This means the consumers are responsible for knowing and implementing the required security measures for the system. Not fully understanding the needs might cause insecure systems. -
    - i. Train employees to understand the security needs with certifications.
    - ii. Plan to extract data from one CSP to another.
  - b. Privileged user breaches-
    - i. Implement Zero trust policy.,
    - ii. Use source control and Infrastructure
    - iii. As Code to create the resources, as they become more transparent.
  - c.

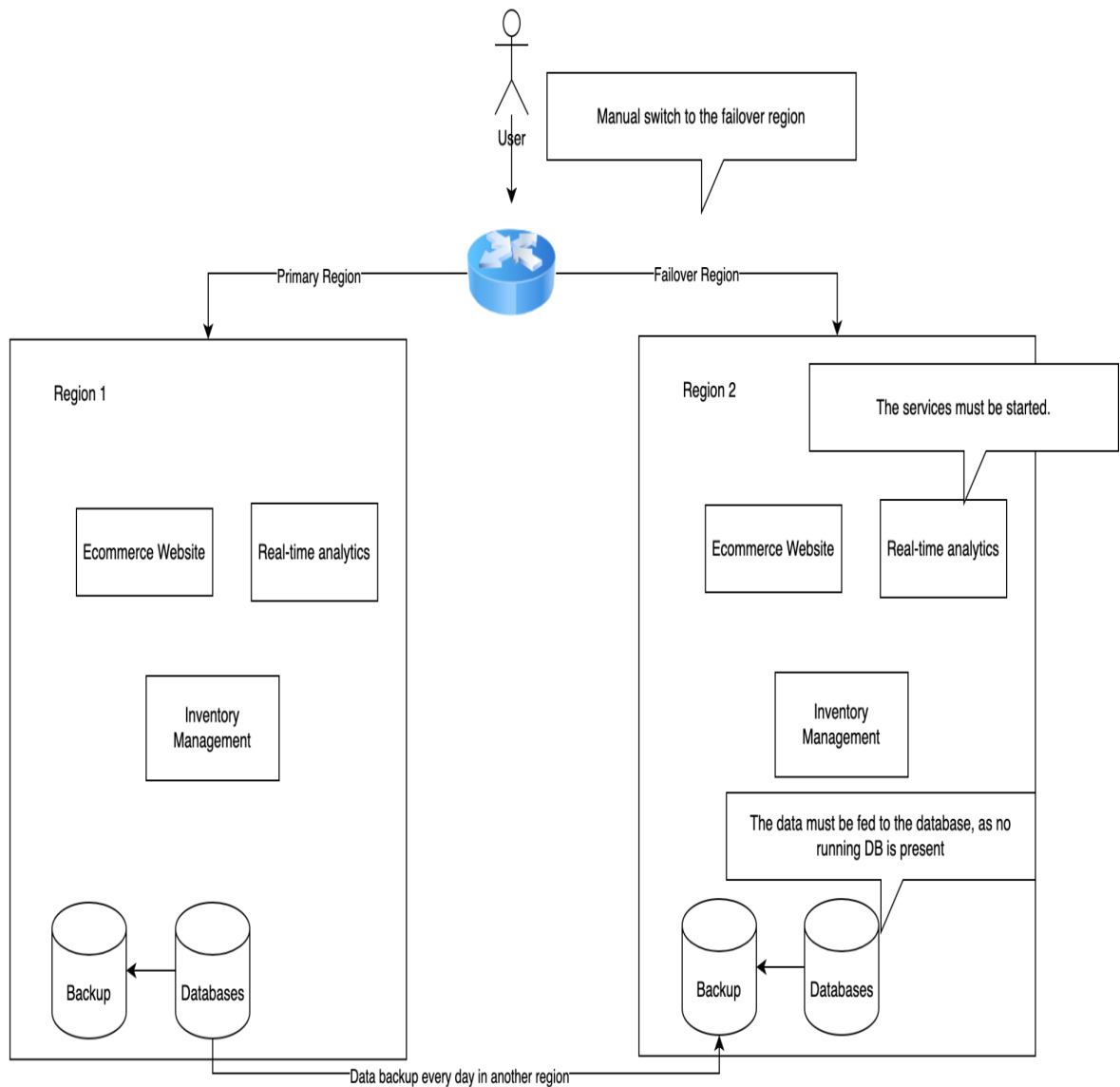
### Part B

Create a high-level diagram of a DR solution for each of the following requirements. They should be created in PowerPoint, and you should include a basic description of each design. Be prepared to share and discuss your designs in this week's seminar.

1. RPO= 1 hr; RTO= 8 hrs; high availability (HA) required.



2. RPO= 24 hrs; RTO = 72 hrs; HA NOT required.



3. RPO= 5 mins; RTO= 1 hr; HA required.

