**Part B: High-level Disaster Recovery (DR) Solutions**

Here are three high-level disaster recovery (DR) designs for the given requirements. These diagrams should be created in PowerPoint and can be shared during the seminar:

1. **RPO = 1 hour, RTO = 8 hours, High Availability Required**

**Design Description**:

* + **Primary Site**: Operates with an active-active configuration across two availability zones (AZs) for high availability.
  + **Secondary Site**: Passive DR site with data replication occurring every hour to ensure that the Recovery Point Objective (RPO) is met.
  + **Failover**: Manual or semi-automated failover to the secondary site within 8 hours in case of a disaster.
  + **Backup & Storage**: Hourly backups stored in a geographically distant location to ensure resilience.

1. **RPO = 24 hours, RTO = 72 hours, High Availability Not Required**

**Design Description**:

* + **Primary Site**: Single data center with a daily backup to a secondary site (no active failover needed).
  + **Secondary Site**: Data is backed up every 24 hours, with a cold standby infrastructure.
  + **Failover**: Can take up to 72 hours to restore services and data from the secondary site if the primary site goes down.

1. **RPO = 5 minutes, RTO = 1 hour, High Availability Required**

**Design Description**:

* + **Primary Site**: Active-active setup with continuous data replication to another region or availability zone.
  + **Secondary Site**: Fully operational secondary site with real-time data synchronization.
  + **Failover**: Automated failover to the secondary site within minutes, ensuring minimal data loss and a recovery time of less than an hour.
  + **Backup Strategy**: Continuous backups to off-site storage with 5-minute replication intervals.

These designs should be placed in PowerPoint, and a brief explanation should be added next to each diagram. Prepare to discuss these designs and how they align with the RPO and RTO requirements in the seminar.