BCS1101 Cloud Computing

Assignment One

1. You are the Chief Technology Officer of a mid-sized company that currently operates with a traditional on-premises IT infrastructure. The company is considering transitioning to cloud computing to improve scalability and reduce costs. However, the CEO is concerned about potential security risks and vendor lock-in.
   i)   How would you approach the transition to cloud computing to address the CEO's concerns?
   ii)   Outline a strategy that balances the benefits of cloud adoption with the risks of security and vendor lock-in.

2. Your company has decided to expand its digital infrastructure by adopting cloud computing. The IT team is debating whether to implement a multi-cloud strategy, where services from different cloud providers are used, or a hybrid cloud strategy, where on-premises infrastructure is integrated with cloud services.
   i)   Evaluate the pros and cons of both multi-cloud and hybrid cloud strategies in the context of your company's needs. Recommend the best approach and justify your decision.

3. After a successful initial migration to the cloud, your company notices that cloud costs are increasing more rapidly than expected. The finance department is concerned about cost overruns and is questioning whether the move to the cloud was financially beneficial.
   Qn. Analyze the potential reasons for the unexpected increase in cloud costs. Propose strategies to optimize cloud spending while maintaining the benefits of cloud scalability and flexibility.

4. A government agency is tasked with storing and analyzing large amounts of citizen data.
   i)   What cloud computing solutions can help the agency manage and process this data effectively?
   ii)   What security and compliance measures should be considered?