**Assignment-1**

Ques-1- Research and summarize the recent trends in computing that have led to the emergence of cloud   
 computing. Highlight the key factors that have contributed to these trends.

Ques-2- Compare and contrast cluster computing and distributed computing. Provide specific scenarios where   
 each of these paradigms would be most advantageous.

Ques-3- Trace the evolution of cloud computing from its origins to the present day. Highlight key milestones   
 and technological advancements that have shaped the development of cloud computing.

1. **960s - Time-Sharing Systems:** Introduction of mainframe time-sharing laid groundwork for resource sharing among users.
2. **1990s - Web Hosting Emergence:** Hosting services offered web-based applications, paving the way for remote resource access.
3. **Early 2000s - AWS and Virtualization:** Amazon Web Services (AWS) introduced Infrastructure as a Service (IaaS); virtualization enabled efficient resource utilization.
4. **2006 - Cloud Computing Term:** Amazon EC2 and S3 popularized the term "cloud computing," marking a turning point.
5. **Late 2000s - Major Cloud Providers:** Microsoft Azure and Google Cloud emerged as major public cloud platforms.
6. **2010s - PaaS, SaaS, Docker:** Platform as a Service (PaaS) and Software as a Service (SaaS) gained prominence; Docker transformed application deployment.
7. **Present - Multi-Cloud, Edge Computing:** Multi-cloud and hybrid strategies became common; edge computing emerged for low-latency needs.
8. **Present - Serverless Computing:** Serverless model minimized infrastructure management, focusing on code.

Ques-4- Identify and explain three key disadvantages or challenges associated with cloud computing adoption.   
 Discuss potential strategies to mitigate these challenges.

Ques-5- Define open standards in the context of cloud computing. Explain how the adoption of open standards   
 enhances interoperability and portability between different cloud platforms.