**Assignment 1**

1. **What is microservices?**

**Answer:**

Microservices is an architectural style that divides whole applications into small services and each service working independently.

It follows the principle of service-oriented architecture.

It is composed of loosely coupled elements.

Microservices have bounded contexts.

1. **Challenges with monolithic oriented architecture**

**Answer:**

* Difficult to scale
* Long build / Test / Release cycle
* Long time to add new features
* Architecture is hard to maintain and evolve
* Operations are nightmare
* New Releases take weeks or months

1. **Any three advantage and disadvantage of microservices**

**Answer:**

**Advantages:**

* Microservice architecture gives developers the freedom to independently develop and deploy service.
* It is possible to change or upgrade each service individually rather than upgrading the entire application.
* Less dependency and easy to test.
* Easy to scale.
* The developers can make use of the latest technologies.

**Disadvantages:**

* Due to distributed deployment, testing can become complicated.
* Difficult to manage a large number of services.
* There is a higher chance of failure during communication between different services.