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**Assignment 1**

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**1.What is Microservices?**

**Ans :**

Microservices are a design pattern in which applications are composed into small , independent modules that communicate with each other using well-defined contracts. Each microservice focuses on a single concept.

**2.Challenges with monolithic oriented architecture**

* One storage for data of entire application
* Unit testing for such a large code base takes time
* Feature will affect the whole system making it unreliable.
* More powerful servers need to be bought to work efficiently
* Scaling up this service to meet the demand is quite inefficient
* Deployment of a large system can also be challenging

**3.Any three advantages and disadvantages of microservices**

* **Advantages:**
* Zero downtime upgrades
* Easy to transfer knowledge to the new team member
* Easy to integrate with third parties
* Failure doesn’t affect the entire application
* Application will became more scalable
* **Disadvantages:**
* Debugging will become difficult
* Production monitoring cost is higher
* Managing multiple databases and their transactions are difficult