MICROSERVICES ASSIGNMENT 1

1) What is microservices?

A1-The term microservices portrays a software development style that has grown from contemporary trends to set up practices that are meant to increase the speed and efficiency of developing and managing software solutions at scale. Microservices is more about applying a certain number of principles and architectural patterns as architecture. Each microservice lives independently, but on the other hand, also all rely on each other. All microservices in a project get deployed in production at their own pace, on-premise on the cloud, independently, living side by side. In this tutorial, learn how to build a microservice using ASP.NET and build, deploy, and test it using a docker container.

2) Challenges with monolithic oriented architecture

A2- Single self-contained unit

- Very slow deployment speeds

3) Any three advantage and disadvantage of microservices

Advantages

* **Improved fault isolation**: Larger applications can remain mostly unaffected by the failure of a single module.
* **Eliminate vendor or technology lock-in**: Microservices provide the flexibility to try out a new technology stack on an individual service as needed. There won’t be as many dependency concerns and rolling back changes becomes much easier. With less code in play, there is more flexibility.
* **Ease of understanding:**With added simplicity, developers can better understand the functionality of a service.

Disadvantages

**Debugging problems can be harder**: Each service has its own set of logs to go through. Log, logs, and more logs

**More services equals more resources**: Multiple databases and transaction management can be painful.

**Communication between services is complex**: Since everything is now an independent service, you have to carefully handle requests traveling between your modules. In one such scenario, developers may be forced to write extra code to avoid disruption. Over time, complications will arise when remote calls experience latency.