Training : Microservices – Assignment 1

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1. What is microservices?

Ans:

The microservice architecture is a method of developing software systems in which we build single-focused modules with well-defined operations related to that module only, instead of building a monolith structure in which we have one module that focus or functions for all the operations.

1. Challenges with monolithic oriented architecture

Ans:

1. Monolith application is large in size and complex to edit operations.
2. Size of the application affects the performance of overall start-up time of application.
3. The whole application has to redeploy on each update.
4. Difficult to scale because of the conflicts in the modules resource requirements.
5. A single problem/bug/error in a single module can affect other interrelated modules and stops working of multiple modules.
6. Adopting new technologies/techniques is expensive in time and cost.
7. Any three advantage and disadvantage of microservices

Advantages :

1. Reduce complexity by dividing problem into separate modules/services, easy to understand and develop.
2. Able to redeploy only updated module/service. No need to redeploy all services on each update.
3. Enables each module/service to be scaled independently.

Disadvantages :

1. Testing becomes complex, because if you want to test one service we have to launch that service and the services on which current service is dependent.
2. As it is a distributed system, we have to choose and implement inter-process communication methods to communicate with other services.
3. Microservices has partitioned databases for each services, so we have to update multiple databases owned by multiple services on each transaction.