ASSIGNMENT 1

1. What is microservices?

➢ Microservices architecture is an essence of service-oriented architecture, where you decompose a big application into multiple small services. Each microservice focuses on a single concept. It's opposite to Monolithic architecture, where you have a single repository/team working on the same application.

2. Challenges with monolithic oriented architecture.

- The start-up time is slowed down by the size of the application.

- Each update requires redeployment of the entire application.

- Monolithic applications can also be difficult to scale if multiple modules have conflicting criteria for resources.

- If Application is too broad and complicated to completely comprehend, it is difficult to make improvements quickly and accurately.

- In any module, bugs can potentially bring down's entire process. In fact, since all instances of the application are the same, the bug affects the functionality of the entire application.

3. Any three advantage and disadvantage of microservices.

Advantages:

- Suitable for large teams and large projects.

- Each team is independent, can offer new features and deploy them on its own without managing the implementation of several resources at a time.

- It can be achieved on the scale of one operation when a new technology or database has to be implemented, without having to re-engineer the whole application.

Disadvantages:

- Not suitable for a small project or a small team

- Hard to define boundaries between services where they shouldn't be too dependent or chatty

- Introduces more complexity in design, execution, tracking so that a team can be prepared to meet several new problems as they advance.