**Microservices Assignment 1**

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1. What is microservices?

Microservices is an architectural style that develops a single application as a set of small services where each service runs in its own process. In this approach the pieces of an application work independently, but together.

1. Challenges with monolithic oriented architecture

Here are some of the challenges with monolithic oriented architecture

* Scalability - Monolithic applications can be difficult to scale when different modules have conflicting resource requirements.
* Reliability - Bug in any module can potentially bring down the entire process.
* Deployment - Continuous deployment is difficult. One must redeploy the entire application on each update.
* Technology stack - A monolithic application must use the same technology stack throughout. Changes to the technology stack are expensive, both in terms of the time and cost involved.
* Time Consuming – It takes too much time to build, test and release the application.

1. Advantages and Disadvantages of microservices

* Advantages :

1. It enables the independent scalability of services.
2. Services can be deployed independently.
3. Less complexity and faster development.

* Disadvantages :

1. Higher chance of failure during communication between services.
2. Deployment and Testing is more complex.
3. Hard to maintain multiple programming languages and frameworks.