

Assignment 1

1) What is Microservices?

Ans. Microservices is a pattern in which projects are divided into modules and those modules can run in an isolated environment. Also, that modules can communicate with each other using API.

2) Challenges with monolithic oriented architecture.

Ans.

1. Challenge with monolithic oriented project is reliability. Bug in any module can bring down the entire process. All the instances of the project are identical, So bug will impact on the entire application.
2. it can't adopt new technologies. Since changes in technology will affect an entire application it is extremely expensive.
3. You must redeploy the entire application on each update.
4. Application is too large and complex to fully understand and made changes fast and correctly.
5. Monolithic oriented project can also be difficult to scale when different modules have conflicting resource requirements.

3) Any three advantage and disadvantage of microservices.

Ans.

Advantages:

- Scalability : Since we have separate services, so we can easily scale the most needed services.
- Improved fault isolation : if in any module failure occur then the application can remain mostly unaffected by the failure.
- Technology independent: Since modules are independent so we can make any module in any technology so there is no restriction of using multi-technology.

Disadvantages :

- More Complex : It is challenging to maintain multiple programming languages and frameworks.
- Debugging problem : Each service has its own set of logs to go through.
- Communication between modules is complex : All modules are independent so we have to carefully handle requests traveling between your modules.