# Brainstorm about Micro Services

* Micro services are a software development technique where complex applications are broken down into smaller, independent services
* Each micro service runs its own process and communicates with other services over a network-based API
* This approach allows for scaling and deployment of individual components without affecting the entire application
* Micro services also enable agility and flexibility, as changes can be made to individual services without affecting the entire system
* However, the approach requires careful consideration of communication protocols and interfaces, and may require additional maintenance overhead

**Advantages:**

* Easy to maintain the specific module
* We can reuse to other projects.
* We can use the latest technology for that , It does not depend on the main project technology.
* Scalability for required modules

**Disadvantages:**

* Complexity to maintain the infrastructure
* Operational Overhead due to Each micro service requires its own deployment, monitoring, scaling, and maintenance. This can lead to increased operational overhead compared to a monolithic application.
* Testing and debugging in a micro services architecture can be more complicated than in a monolithic application
* Securing micro services can be more challenging than securing a monolithic application. Each service needs its own security measures, and securing communication between services is crucial
* You may need to invest in new tooling and DevOps practices to effectively manage micro services
* While micro services can help with scalability and cost optimization in some cases, the added complexity and operational overhead can also increase costs.

**How to choose Micro service for your application?**

* Before Going to choose micro services, We have to double check Why we are choosing micro service for a particular module. If we can answer to this, Then, we can go.
* If your application needs to scale horizontally to handle varying workloads, micro services can provide the necessary scalability. Consider whether this scalability is a key requirement for your project
* If there is no reusability , then don’t choose micro service.