

# Questions and Answers

Thursday, April 12, 2018 10:17

## 1. Which criteria let you identify the good software architecture?

- Efficiency performance of posed goal
- Clean code
- Good scalability
- Flexibility of the system

## 2. Which criteria let you identify the bad software architecture

- Rigidity
- Fragility
- Immobility
- Viscosity
- Needless repetition
- Opacity
- Needless complexity

## 3. Tell, please, advantages and disadvantages of n-tier architecture.

Advantages: Testability, Ease of deployment

Disadvantages: Performance, Scalability, Deployment

## 4. What is your understanding of Microkernel Architecture principals?

The microkernel architecture pattern consists of two types of architecture components: a *core system* and *plug-in modules*. Application logic is divided between independent plug-in modules and the basic core system, providing extensibility, flexibility, and isolation of application features and custom processing logic

## 5. Tell, please, advantages and disadvantages of Microkernel Architecture.

Advantages: Testability, Ease of deployment, Performance

Disadvantages: Scalability, Deployment

## 6. What Is Soa?

SOA is an architecture for building applications using reusable, interoperable services which have well defined business functionalities and can be orchestrated to achieve a specific functionality by utilizing them together.

## 7. What Are The Main Benefits Of Soa?

- SOA helps create greater alignment between IT and line of business while generating more flexibility – IT flexibility to support greater business flexibility. Your business processes are changing faster and faster and global competition requires the flexibility that SOA can provide.
- SOA can help you get better reuse out of your existing IT investments as well as the new services you're developing today. SOA makes integration of your IT investments easier by making use of well-defined interfaces between services. SOA also provides an architectural model for integrating business partners', customers' and suppliers' services into an enterprise's business processes. This reduces cost and improves customer satisfaction.

## 8. Please list the Microservices Architecture principles.

1. Componentization via services
2. Organized around business capabilities
3. Products not Projects
4. Smart endpoints and dumb pipes
5. Decentralized Governance
6. Decentralized Data Management
7. Infrastructure Automation
8. Design for failure
9. Evolutionary design

## 9. What Does Eventually Consistent Mean?

Unlike relational database property of Strict consistency, eventual consistency property of a system ensures that any transaction will eventually (not immediately) bring the database from one valid state to another.

This means there can be intermediate states that are not consistent

between multiple nodes.