

Q1 What is service oriented architecture & explain how it supports cloud computing?

→ service Oriented architecture (SOA)

It is a software design approach where application are built using loosely coupled services that communicate over a network. These services are independent & reusable meaning different application can use them without modifying their internal logic. Also it provides specific functionalities such as authentication, data processing or storage.

SOA supports cloud computing

It supports cloud computing in following ways.

1. Modularity: Cloud services are designed as independent modules just like SOA-based services ~~rather~~ ^{rather} than coding ~~everything~~ ^{rather than coding} from scratch.
2. Scalability: SOA allows cloud application to scale by adding more services as required.
3. Reusability: Cloud providers offer common services that can be reused across multiple application.
4. Flexibility: Developers can build applications by combining various cloud services rather than coding everything from scratch.

SOA forms foundation of cloud computing by ensuring that applications can use distributed resources efficiently & integrate various cloud services seamlessly.