

- business service design, application service design and their combination to implement the solutions.
4. Ability to plan, analyze and design enterprise software applications based on service-oriented architecture.
 5. Learning the emerging trends in service-oriented architecture.
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COURSE CONTENT

UNIT-I

Introduction: Roots of SOA, Characteristics of SOA, Comparing SOA to client-server and distributed internet architectures, Anatomy of SOA, How components in an SOA interrelate, Principles of service orientation

UNIT-II

Web services: Service descriptions, Messaging with SOAP, Message exchange Patterns, Coordination, Atomic Transactions, Business activities, Orchestration, Choreography, Service layer abstraction, Application Service Layer, Business Service Layer, Orchestration Service Layer

UNIT-III

Service oriented analysis: Business-centric SOA, Deriving business services, service modeling, Service Oriented Design, WSDL basics, SOAP basics, SOA composition guidelines, Entity-centric business service design, Application service design, Task- centric business service design

UNIT-IV

SOA platform basics: SOA support in J2EE, Java API for XML-based web services (JAX-WS), Java architecture for XML binding (JAXB), Java API for XML Registries (JAXR) , Java API for XML based RPC (JAX-RPC).

UNIT-V

WS-BPEL basics: WS-Coordination overview, WS-Choreography, WS-Policy, WSSecurity
Emerging trends
