

## E-SOA –Training for Enterprise Architects & Business Analysts

### Course Syllabus & Content ( Course ID: ESOA-BA)

#### Preliminary session: ( Duration 3 hrs )

##### **1. Introduction to EA/SOA Field, opportunities and various division of labor.**

Various Job opportunities in EA-SOA-BPM, Current Market trend, Future growth of the segments, how to get trained in the field.

##### **2. Goal Setting and reaching Process. -A practical approach.**

How to write Goals - How to convert wish list to goal through qualification process- Seven Step Goal Setting Process – How to practically achieve goals.

##### **3. Enterprise Architecture Introduction.**

E-SOA views/View points – Where do EA-SOA stand- Why EA-SOA? – What is architecture? – What is Blue print? – What is Design? – Difference between architect & Engineer Job roles- Need for architecture framework

##### **4. Enterprise Integration Introduction.**

Need for Enterprise Integration – Integration points – Integration mechanism explained using real-world examples – Difference between Enterprise Integration and Technology integration – Concepts of Business Process Integration explained – Introduction to Enterprise Integration tools like Telelogic – Troux – eBlitz.

#### Session 1: Enterprise Architecture and Integration( Duration 3 hrs )

##### **5. Industry standard Frameworks – ZachMan, FEEF, DODAF and TOGAF.**

Zachman framework Primitive and complex models – Zachman periodic table explained – various artifacts and Job roles. What is enterprise? – Structure of an Enterprise – Federal Enterprise Architecture Framework(FEEF) Explained – Department of Defense framework(DODAF) explained.

##### **6. Architecture Development Methodology using TOGAF.**

TOGAF ADM explained –inputs and outputs of various stages -- Enterprise Continuum explained - Artifacts Management & Repository system design. Business and Technical Reference Architectures explained-- Information base and Artifacts repository explained.

**Session 2: Business Architecture & Design ( Duration : 3 hrs )**

**7. Designing an EA framework for an Organization.**

How to Adopt an EA framework from industry standard frameworks – Criteria for choosing framework- How to design new framework – how to modify an existing framework to fit into the customer need – sample design.

**8. Design and development of Business Architecture.**

Business Design principles – Business Process architecture – Business components introduction – Current State(AS-IS) & Future State(TO-BE)- Product Driven Business Structure – Service Driven Business Structure – Shifting from one business structure to other – Re-architecting/Integrating after Acquisition –RE-Engineering-

**Session 3: Business Process Modeling, Design & Management.**

**9. Design & Modeling of Business Systems and Processes using UML**

Enterprise Modeling and Process Orientation – WorkFlow management – Modeling Process data – Modeling Operation – Modeling Organization -

**10. Business Process Management & Transformation.**

Classification of Business Processes – Business Process Life Cycle – Process Orchestration & control flow patters – Event driven process chains – BPMN – Process choreography design – Business Process methodology & various phases

**11. Business Process modeling using Industry standard tools.**

IBM Process server – ORALCE BPM ( OBPM tool)

**Session 4: Introduction to SOA & Services Life Cycle ( Duration: 3 hrs )**

**12. SOA Introduction**

What is SOA? – Why SOA? – Benefits of SOA – SOA as process & Program

**13. SOA & EA connectivity.**

How SOA connected to EA? – How BPM acts between EA and SOA? – Right and wrong implementations of SOA? – Risks of SOA failure when not driven by EA.

**14. EA-SOA LifeCycle Explained.**

EA life cycle – SOA lifecycle – Connectivity between EA and SOA lifecycle

**Session 5: Business Services Identification Analysis & Design (Duration: 3 hrs )**

**15. Service Life Cycle explained in detail.**

Need for Life Cycle – Introduction to governance - EA life Cycle – SOA Life Cycle – Business Services Life cycle – Technical Services Life cycle – Connectivity between service life cycles – Activities & deliverables at various stages of life cycle - How to modify life cycle for specific customer need.

**16. Service Identification & Analysis.**

Service Nee analysis – Service analysis- Process, Domain, and Entity based analysis - Similarity analysis – Character analysis – Coarse grained, fine grained services – Granularity matrix and map, various set theory analysis for service granularity.

**17. Service Design.**

Top down approach on service design – Bottom up approach on service design – various service design principles – service design methodologies – service components – solutions design, service orientation – service models – service composability analysis – service patters.- Service Level Agreement –How to write SLA and how to enforce it with or without a tool.

**18. Exercise on sample Service Analysis & Design.**

Practical & real-world examples.

**Session 6: BPEL & Business Integration Implementation using IBM/ORACLE BPEL-ESB tools(Duration: 3hrs)**

**19. Business Process Orchestration using BPEL & ESB.**

What is BPEL? – Difference between BPML and BPEL.- Why BPEL? – Alignment of business & service layers using BPEL- Partnerlink –structures – activities – loops – datatypes - various functions and methods – scopes – correlation sets – fault handling – compensation - concurrency

**20. BPEL using IBM BPEL Engine and IBM ESB.**

Introduction to IBM Integration developer – SOA development using IBM Rational application developer – Introduction to websphere Enterprise Service Bus – Websphere Message broker –

Integration of Websphere registry and repository using ESB – Websphere Transformation extender. BPEL using IBM Business Process Choreographer – BPC (part of IBM Process Server)

### **21. BPEL using ORACLE BPEL Engine and ORACLE ESB.**

Oracle SOA development using Jdeveloper & Oracle SOA suite – Creating business service – creating service WSDL - message flow –proxy service – creating services from files – creating service from database – composite business process using BPEL- human flow as part of BPEL- designing service contracts- Business rules using rule author – Process state monitoring and KPI- BPEL process management using Oracle BPEL Process manager

## **Session 7: SOA Principles, Project Management & Governance LifeCycle ( Duration: 3 hrs)**

### **22. SOA Principles, Service Orientation**

Various principles of SOA explained – How to achieve SOA principles – metrics – converting organizational business processes and applications through service orientation.

### **23. SOA governance, Life Cycle Management, Architecture Review and Requirements change management.**

Role of Governance in SOA – How to configure Life cycles on governance – Governance process development – Governance life cycle activities and actors – Approval/voting process for various stages – Governance implementation using HP systinet/ eBlitz Governance tools. Connecting Business Service life cycle and technical service life cycle with or without the use of governance tool.

### **24. SOA project Management, division of Labor & SOA Deliverables.**

Difference between SOA program and SOA project – How to develop/modify lifecycle for SOA projects – SOA project management deliverables and activities – Various roles and responsibilities of members of Project team. Difference between typical technology project and SOA based project.

## **Session 8: Case Study – (Duration: 4 hrs)**

**Bonus Session: Career Guidance, Resume preparation and Interviews skills.( 2 hrs).**