

Unit : 5 : Principles of Service - Oriented Computing.

* Explain Difference between RPC and Document style.

=>	RPC	Document Style
1	Difficult to validate the predefined schema (XML).	Easy to validate the predefined schema (XML).
2	Message is Tightly Coupled.	Message is Loosely coupled.
3	SOAP Message is loses the operation name.	SOAP Message is keep the Operation name.
4	Parameters are send as Discrete Value.	Parameters are send as XML Formet.
5	SOAP Message is send the many document.	SOAP Message is send only one document.

* Explain Service Lifecycle.

⇒ Service Lifecycle is divided into Two parts.

(i) Design-time
(ii) Run time.

There are Seven phase in Service Lifecycle.

There are Three Phase is includes in Design time in Services Lifecycle.

There are Four Phase is includes in Run time in Services Lifecycle.

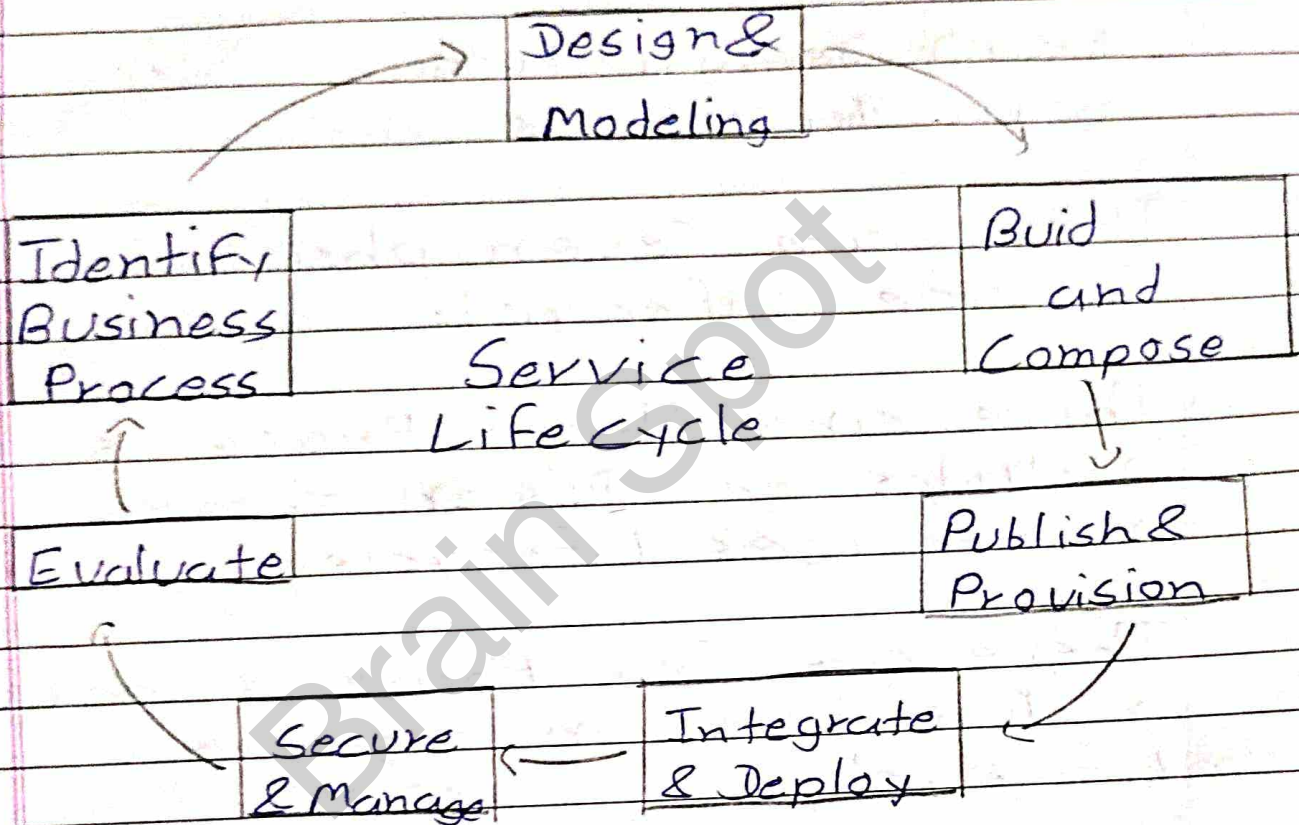
(i) Design Time:

In this Part, Service is create and compose in the UDDI Registry.

This are three Phase in Design time.

(a) Identify Business Processes

cb) Service Design and Modeling
 ca) Build and Compose.



ca) Identify Business Process:

In this phase, we have to identify the Business Process in which we have to select the good approach for the start the service.

In this phase, we have to

identify the needs of a Service. There are three types of Service needs.

Short-term needs in which duration is 3 to 6 months, Medium-term needs in which duration is 6 to 18 months, Long-term needs in which duration is more than 18 months.

After this, we have to identify service dependencies, service priority and reuse.

(b) Service Design and Modeling:

In this phase, we have to select the approach for create service design and modeling.

In Service Design, we have to define the steps for create the service business Process.

Service design provides the steps or activities that can

use to decompose the Business Process according to SOA Principles.

In Service Modeling, phase we have to select two model among the line of Business and Enterprise Service model.

(ii) Build and Compose:

In this phase, we have to focus on develop task which is require for service.

In this Phase, we have to start the build the service and track the service work development.

(iii) Run Time:

After the Design time, we have to start Run time.

This are Four phase in Run time.

- ca) Publish and Provision
- cb) Integrate and Deploy
- cc) Secure and Manage
- cd) Evaluate.

ca) Publish and Provision:

After the create the service, we have to Publish the service.

Using UDDI Registry, we can Publish the service. UDDI Registry is use to Find the service to the Service Requestor

cb) Integrate and Deploy:

After the Publish the Service, Service Requestor can Find the service in UDDI Registry.

After this, we have to integrate the service with any platform for the service requestor.

cc) Secure and Manage:

After the Provide the service

to the service requestor, we have to provide proper security to the service consumer.

Service Provider have to provide proper management for service.

c) Evaluate:

After the service provide, we have to evaluate the service according to service consumer needs.

* Explain Web-Services Business Process Execution Language (WS-BPEL).

=> Web-Services Business Process Execution Language provides portable process models.

WS-BPEL is used to define the abstract and executable processes.

WP-BPEL Abstract Processes are used for E-commerce specification.

WP-BPEL Executable Processes are used for provide integrating enterprise applications.

Web Service Business Process is defined using an XML-Based Language.

BPEL Processes are exposed as WSDL Services in which message exchanges map to WSDL operations.

BPEL Provide the Partner link which is use to provided Port Types.

BPEL Processes interact with WSDL Services which is exposed by business partners.

BPEL Data model is Provide the Scope Variable.

Scope Variable typed as WSDL message or XML Schema element or types.