**REST**

**\*Full form of REST?**

The REST stands for **Representational State Transfer**. It is an architectural style. It is not a protocol like SOAP.

**\*Full form of JSON?**

**JSON** stands for **JavaScript Object Notation.** **JSON** is a lightweight format for storing and transporting data. **JSON** is often used when data is sent from a server to a web page.

**\*Authentication and authorization in REST?**

**Authentication** is stating that you are who are you are and **Authorization** is asking if you have access to a certain resource. When working with **REST APIs** you must remember to consider security from the start. **RESTful API** often use GET (read), POST (create), PUT (replace/update) and DELETE (to delete a record).

**\*@JsonIgnore annotation?**

@**JsonIgnore** is **used** at field level to mark a property or list of properties to be ignored.

**\*Why we use rest?**

* **Fast -** The Web Services are fast because there is no strict specification of SOAP. It consumes less bandwidth and resource.
* **Language Independent -** The web services can be written in any programming language.
* **Platform Independent -** The web services can be executed on any platform.
* **Can use SOAP -** The web services can use SOAP web services as the implementation.

Allows different data format - The web service permits different data format such as Plain Text, HTML, XML, and JSON.

**\*How to parse xml file in java?**

The **DOM API** provides the classes to read and write an XML file. We can create, delete, modify, and rearrange the node using the DOM API.

https://www.javatpoint.com/how-to-read-xml-file-in-java

**\*What is regression testing and integration testing?**

**Integration Testing** is performed to check the effective functionality of the units between each other. **Regression Testing** is done to check if old bugs have been reintroduced to the system after code modifications take place. **Integration Testing** is normally done before the initial deployment of the application.

### \*What is SOAP?

The SOAP stands for Simple Object Access Protocol. It is an XML-based protocol for accessing web services. It is platform independent and language independent. By using SOAP, you can interact with other programming language applications.

**\*What is Web Service?**

The Web Service is a standard software system used for communication between two devices (client and server) over the network. Web services provide a common platform for various applications written in different languages to communicate with each other over the network.

* It is available over the Internet or private (intranet) networks.
* It is not tied to any one operating system or programming language.

**\*What is WSDL?**

The WSDL stands for Web Services Description Language. It is an XML document containing information about web services such as method name, method parameter.

**\*What is UDDI?**

The UDDI stands for Universal Description, Discovery and Integration. It is a XML based framework for describing, discovering and integrating web services. It contains a list of available web services. WSDL is the part of UDDI

**\*Explain different HTTP methods supported by RESTful web services?**

Enlisted below are some common HTTP methods along with their functions that are supported by RESTful web services.

* **GET**: Read-only access to the resource.
* **PUT**: Creation of new resource.
* **DELETE**: Removal of a resource.
* **POST**: Update of an existing resource.
* **OPTIONS**: Get supported operations on the resource.
* **HEAD**: Returns HTTP header only, nobody.

HTTP also defines the following standard status code:

* **404:** RESOURCE NOT FOUND
* **200:** SUCCESS
* **201:** CREATED
* **401:** UNAUTHORIZED
* **500:** SERVER ERROR

## RESTful Service Constraints

* There must be a service producer and service consumer.
* The service is stateless.
* The service result must be cacheable.
* The interface is uniform and exposing resources.
* The service should assume a layered architecture.

**\*Difference between @RestController and @Controller?**

The @Controller is a common annotation that is used to mark a class as Spring MVC Controller while @RestController is a special controller used in [RESTFul web services](http://javarevisited.blogspot.sg/2015/08/difference-between-soap-and-restfull-webservice-java.html" \t "_blank) and the equivalent of @Controller + @ResponseBody.

The **@RestController** is relatively new, added only on Spring 4.0 but @Controller is an old annotation, exists since Spring started supporting annotation, officially it was added on Spring 2.5 version.

Another key difference between @RestController and @Controller is that you don't need to use @ResponseBody on every handler method once you annotate the class with @RestController as shown below: