Agile/Scrum

1. What is the size of your Scrum team?

A.7 team size

2. What is the composition of the team ? How many developers? How many testers?

A.4 Developers,2 testers and 1 scrum master

3. How do testers communicate their defects with developers?

A.They communicate by using jira software, the bug is assigned to developer with respect to module

4. What is the length of the sprint? Is there a release after every Sprint?

A.2 weeks,in my current project for every 2 sprint we have release

5. How do you estimate story/tasks/ allocate

A.For every sprint meeting my scrum master will allocate the tasks ,what needs to be done in these 2 weeks

6. What is your definition of DONE?

A.First I will build the project ,after building the project I will send my war file to my testing team they will perform some functional testing on it.if the build has any bugs I need to fix the bugs and send back the testing team,if the build is successfully passed all the functional testing .Then I will proceed for the deployment on the production,in the production if I found any major bugs we need to fix those one and if those bugs have less prority then the its is DONE

7. Burndown chart

A.A Burn down chart is a graphical representation of work left to do versus time.The outstanding work is often on the vertical axis,with time along the horizonatal.That is ,it is a run chart of outstanding work.it is useful for predicting when all of the work will be completed

8. 3-4- issues discussed during Retrospective and their resolution steps

9. Issues discussed during daily standup and their resolution steps

10. Steps taken if there is lousy code coming from a developer

11. What do you do when a defect found during the release

SOAP/Rest / Web services

1. What have you done in SOAP UI Testing? How do you go about doing the testing?

2. What is XSD schema

A. XSD (XML Schema Definition) is a World Wide Web Consortium ([W3C](http://searchsoa.techtarget.com/definition/W3C)) recommendation that specifies how to formally describe the elements in an Extensible Markup Language ([XML](http://searchsoa.techtarget.com/definition/XML)) document. This description can be used to verify that each item of content in a document adheres to the description of the element in which the content is to be placed.

An XML Schema describes the structure of an XML document.

The XML Schema language is also referred to as XML Schema Definition (XSD).

XSD Example

<?xml version="1.0"?>  
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">  
  
<xs:element name="note">  
  <xs:complexType>  
    <xs:sequence>  
      <xs:element name="to" type="xs:string"/>  
      <xs:element name="from" type="xs:string"/>  
      <xs:element name="heading" type="xs:string"/>  
      <xs:element name="body" type="xs:string"/>  
    </xs:sequence>  
  </xs:complexType>  
</xs:element>  
  
</xs:schema>

The purpose of an XML Schema is to define the legal building blocks of an XML document:

* the elements and attributes that can appear in a document
* the number of (and order of) child elements
* data types for elements and attributes
* default and fixed values for elements and attributes

3. What is WSDL

* A WSDL stands for Web Services Description Language
* WSDL is used to describe web services
* WSDL is written in XML

## WSDL Documents

An WSDL document describes a web service. It specifies the location of the service, and the methods of the service, using these major elements:

|  |  |
| --- | --- |
| **Element** | **Description** |
| <types> | Defines the (XML Schema) data types used by the web service |
| <message> | Defines the data elements for each operation |
| <portType> | Describes the operations that can be performed and the messages involved. |
| <binding> | Defines the protocol and data format for each port type |

The main structure of a WSDL document looks like this:

<definitions>  
  
<types>  
  data type definitions........  
</types>  
  
<message>  
  definition of the data being communicated....  
</message>  
  
<portType>  
  set of operations......  
</portType>  
  
<binding>  
  protocol and data format specification....  
</binding>  
  
</definitions>

## WSDL Example

This is a simplified fraction of a WSDL document:

<message name="getTermRequest">  
  <part name="term" type="xs:string"/>  
</message>  
  
<message name="getTermResponse">  
  <part name="value" type="xs:string"/>  
</message>  
  
<portType name="glossaryTerms">  
  <operation name="getTerm">  
    <input message="getTermRequest"/>  
    <output message="getTermResponse"/>  
  </operation>  
</portType>

In this example the**<portType>** element defines "glossaryTerms" as the name of a **port**, and "getTerm" as the name of an **operation**.

The "getTerm" operation has an **input message** called "getTermRequest" and an **output message** called "getTermResponse".

The**<message>** elements define the **parts** of each message and the associated data types.

## The <portType> Element

The <portType> element defines **a web service**, the **operations** that can be performed, and the **messages** that are involved.

The request-response type is the most common operation type, but WSDL defines four types:

|  |  |
| --- | --- |
| **Type** | **Definition** |
| One-way | The operation can receive a message but will not return a response |
| Request-response | The operation can receive a request and will return a response |
| Solicit-response | The operation can send a request and will wait for a response |
| Notification | The operation can send a message but will not wait for a response |

4. What kind of security testing done on Webservcies /SOAP UI

We can perform functional, regression and load testing on SOA and Web Services using SoapUI.

**How to download and install SoapUI?**

**Download SoapUI:**

Click on the link to download SoapUI – [**Click Here**](http://sourceforge.net/projects/soapui/files/)

**Install SoapUI:**

**Please follow the process to install SoapUI:**

Installing SoapUI is very easy, once you downloaded .exe file successfully, just double click on the file and follow the instructions to install. Once SoapUI installed successfully it will look like this-

5. Difference between HTTP / HTTPs

|  |  |
| --- | --- |
| **HTTP** | **HTTPS** |
| **URL begins with “http://”** | **URL begins with “https://”** |
| **It uses port 80 for communication** | **It uses port 443 for communication** |
| **Unsecured** | **Secured** |
| **Operates at Application Layer** | **Operates at Transport Layer** |
| **No encryption** | **Encryption is present** |
| **No certificates required** | **Certificates required** |

6. What are Certificates in terms of security?

An **SSL** certificate, or secure certificate, is a file installed on a secure Web server that identifies a website. This digital certificate establishes the identity and authenticity of the company or merchant so that online shoppers can trust that the website is secure and reliable.

7. What is X509 ?

In cryptography, **X.509** is an important standard for a public key infrastructure (PKI) to manage digital certificates and public-key encryption and a key part of the Transport Layer Security protocol used to secure web and email communication.

8. How do you do data set up for SOAP UI automation?

9. Used any version control tool and how? / Source code repository

I am using subversion 1.5 version

10. How do you go about automating SOAP UI

11. What is the difference between SOAP & Rest

# SOAP vs REST Web Services

There are many differences between SOAP and REST web services. The important 10 differences between SOAP and REST are given below:

|  |  |  |
| --- | --- | --- |
| **No.** | **SOAP** | **REST** |
| 1) | SOAP is a **protocol**. | REST is an **architectural style**. |
| 2) | SOAP stands for **Simple Object Access Protocol**. | REST stands for **REpresentational State Transfer**. |
| 3) | SOAP **can't use REST** because it is a protocol. | REST **can use SOAP** web services because it is a concept and can use any protocol like HTTP, SOAP. |
| 4) | SOAP **uses services interfaces to expose the business logic**. | REST **uses URI to expose business logic**. |
| 5) | **JAX-WS** is the java API for SOAP web services. | **JAX-RS** is the java API for RESTful web services. |
| 6) | SOAP **defines standards**to be strictly followed. | REST does not define too much standards like SOAP. |
| 7) | SOAP **requires more bandwidth** and resource than REST. | REST **requires less bandwidth** and resource than SOAP. |
| 8) | SOAP **defines its own security**. | RESTful web services **inherits security measures** from the underlying transport. |
| 9) | SOAP **permits XML** data format only. | REST **permits different** data format such as Plain text, HTML, XML, JSON etc. |
| 10) | SOAP is **less preferred** than REST. | REST **more preferred** than SOAP. |

Database:

* 1. What is a schema

A. **Database schema**. ... The term "**schema**" refers to the organization of data as a blueprint of how the **database** is constructed (divided into **database** tables in the case of relational **databases**). The formal definition of a **database schema** is a set of formulas (sentences) called integrity constraints imposed on a **database**.

2. What is Join (inner, outer etc)

An SQL JOIN clause is used to combine rows from two or more tables, based on a common field between them.

The most common type of join is: **SQL INNER JOIN (simple join)**. An SQL INNER JOIN returns all rows from multiple tables where the join condition is met.

Let's look at a selection from the "Orders" table:

Notice that the "CustomerID" column in the "Orders" table refers to the "CustomerID" in the "Customers" table. The relationship between the two tables above is the "CustomerID" column.

Then, if we run the following SQL statement (that contains an INNER JOIN):

Example

SELECT Orders.OrderID, Customers.CustomerName, Orders.OrderDate  
FROM Orders  
INNER JOIN Customers  
ON Orders.CustomerID=Customers.CustomerID;

An outer join returns a set of records (or rows) that include what an inner join would return but also includes other rows for which no corresponding match is found in the other table.

There are three types of outer joins:

* Left Outer Join (or Left Join)
* Right Outer Join (or Right Join)
* Full Outer Join (or Full Join)

**http://www.diffen.com/difference/Inner\_Join\_vs\_Outer\_Join**

* 1. Group by, Aggregate, having clause explanation with example

## The GROUP BY Statement

The GROUP BY statement is used in conjunction with the aggregate functions to group the result-set by one or more columns.

### SQL GROUP BY Syntax

SELECT column\_name, aggregate\_function(column\_name)  
FROM table\_name  
WHERE column\_name operator value  
GROUP BY column\_name;

Count,sum,min,max,avg etc….

## The HAVING Clause

The HAVING clause was added to SQL because the WHERE keyword could not be used with aggregate functions.

### SQL HAVING Syntax

SELECT column\_name, aggregate\_function(column\_name)  
FROM table\_name  
WHERE column\_name operator value  
GROUP BY column\_name  
HAVING aggregate\_function(column\_name) operator value;

* 1. Foreign key, Unique key

Unique Key

* Unique Constraint may have a NULL value.
* Each table can have more than one Unique Constraint.
* By default, Unique key is a unique non-clustered index.
* Unique Constraint can not be related with another table's as a Foreign Key.
* Unique Constraint doesn't supports Auto Increment value.

Foreign Key

* Foreign key is a field in the table that is primary key in another table.
* Foreign key can accept multiple null value.
* Foreign key do not automatically create an index, clustered or non-clustered. You can manually create an index on foreign key.
* We can have more than one foreign key in a table.
* There are actual advantages to having a foreign key be supported with a clustered index, but you get only one per table. What's the advantage? If you are selecting the parent plus all child records, you want the child records next to each other. This is easy to accomplish using a clustered index.
* Having a null foreign key is usually a bad idea. In the example below, the record in [dbo].[child] is what would be referred to as an "orphan record". Think long and hard before doing this.

* 1. What is SQL injection (security testing)

## SQL Injection

SQL injection is a technique where malicious users can inject SQL commands into an SQL statement, via web page input.

Injected SQL commands can alter SQL statement and compromise the security of a web application.

## SQL Injection Based on 1=1 is Always True

Look at the example above, one more time.

Let's say that the original purpose of the code was to create an SQL statement to select a user with a given user id.

If there is nothing to prevent a user from entering "wrong" input, the user can enter some "smart" input like this:

UserId:   


### Server Result

SELECT \* FROM Users WHERE UserId = 105 or 1=1

6. What is the HAVING clause, GROUP BY Clause?

7. What is an index ?

An index is used to speed up the performance of queries. It does this by reducing the number of database data pages that have to be visited/scanned. In **SQL Server**, a clustered index determines the physical order of data in a table. There can be only one clustered index per table

Unix:

* 1. which is your favorite shell in Unix ?
  2. bash
  3. what is a .ssh directory in Unix

SSH client utility in unix or linux server is used to logging into a remote host and execute commands on the remote machine. The rlogin and rsh commands can also be used to login into the remote machine. However these are not secure. The ssh command provides a secure connection between two hosts over a insecure network.

**ssh** root@host "command". ie: **ssh** root@192.168.1.1 "cat /etc/fstab". If you are trying to execute multiple commands

localhost:[~]> ssh username@remote-server

username@remote-server password:

* 1. remote-server:[~]>
  2. Why do you use Pipe command ?

Two or more **commands** connected in this way form a **pipe**. To make a **pipe**, put a vertical bar (|) on the **command** line between two **commands**. When a program takes its input from another program, performs some operation on that input, and writes the result to the standard output, it is referred to as a filter.

4. how to find a file which is lying in a home directory but you don't know the folder name ?

5. How do you find available disk space in Unix?

Df -hk

* 1. What is the psudo command used for?

sudo (/ˈsuːduː/ or /ˈsuːdoʊ/) is a program for Unix-like computer operating systems that allows users to **run** programs with the security privileges of another user, by default the superuser. It originally stood for "superuser do" as the older versions of sudo were designed to **run** commands only as the superuser.