**0.Explain about yourself?** 

**1. What is Progressive Insurance Service project?**   
  
**Progressive Insurance** Corporation is one of the largest providers of CarInsurance in Untied State.

**2. How many team member are there in your project?**   
  
There are eight members in our project.   
  
**3. What is your role in the current project?**   
  
Software Engineer   
  
**4. On what modules you are worked on?**   
  
I worked on five modules.   
  
1. Login module which consists of logins for some of the business partner. To access my policy service .   
2. Enroll   
3. Claims   
4. Policies   
5. Status   
  
**5. Explain in detail about each module?**   
  
1. **Login module**   
  
Login module is all about Login credantilas for the appication user. 

2. **Enroller Application**   
  
In Enroller Application we have pages like   
  
-Application Form   
-Pending   
-Approved   
-Rejected   
-Data Insufficient   
  
3. **Claims**   
  
In Claims we have pages like   
  
-Early Claims(Accidents,Diseases) -Two times of sum assured + Payed preimium till date(less then 1 year i.e from the date of bond issued) + Police Enquiry 

-General Claims(Natural Deaths)-Sum assured + Payed preimium till date ( i.e more then 1 year)   
  
-Nominees-(Wife,Children)   
  
-Bond Completion(End of term) ,Can go for Renewal with less preimum.   
  
4. **Policies**   
  
-Renewals(mode)   
-Commisions(mode)   
-Lapsations   
-New Policies 

5. **Status**   
  
-Ranking(Monthly,yearly)   
-Analysis(Graphs)   
-memberships(BM,DM,ZM,CM)   
-Tables(Graphs)   
  
  
  
**5.What is your role in the previous project?**   
  
Trainee Software Developer  
  
**6.What was your first designation?**   
  
Trainee Software Developer   
  
**Company**  
  
**1. Which company you are working?**   
  
I am working under payrolls of sunpro cyber system.   
  
**2.Which client you are working under?**   
  
I am working for Thomson Rureurs.   
  
**3.Which project you are working?**   
  
I am working for **Progressive Insurance project**.   
  
**4.What is your current package?**   
  
3.8 laks

**4.What is your expected package?**   
  
5.5 lakhs   
  
**5.Where is** Thomson Rureurs**?**   
  
Tower E, RMZ Infinity, Old Madras Road, Bengaluru, Karnataka 560093

**Thomson Reuters, Mindspace, Vittal Rao Nagar, HITEC City, Hyderabad, Telangana**  
  
**6.What is the site of** Thomson Rureurs**?**   
  
www.sophiontechnologies.com   
  
  
**7.What is your consultancy mail id and consultancy head name?**   
  
https://login.secureserver.net/index.php?app=wbe   
User Name : srinivas.bh@sophiontechnologies.com   
Pw : 123456   
  
Krishna.   
  
  
**8.Where does sunpro cyber system?**   
  
Plot No: 9, Survey No 75 &76, Nanakramguda X Roads, Raidurgam, Gachibowli, Hyderabad, Telangana 500032

**9.What is the sunpro cyber system?**   
  
http://sunprocybersystems.com/company.html

**10.Can you explain anything about your client company?**   
  
it started in year of 2008 which mainly deals with mass media and information firm..

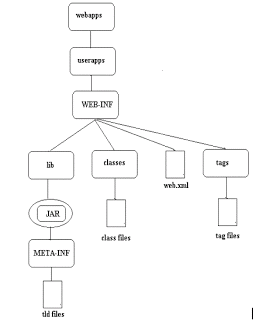
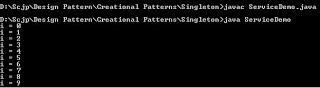
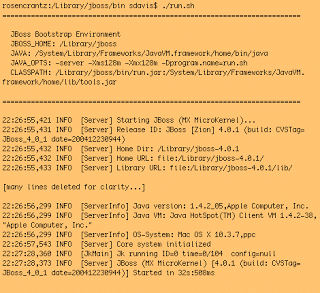
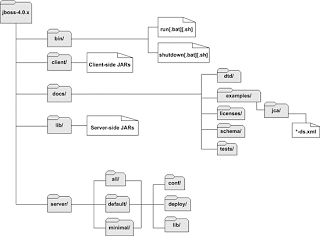
|  |  |
| --- | --- |
| **Founded** | 17 April 2008 ([Toronto](https://en.wikipedia.org/wiki/Toronto" \o "Toronto),[Ontario](https://en.wikipedia.org/wiki/Ontario), Canada) |
| **Headquarters** | [New York](https://en.wikipedia.org/wiki/New_York_City), [NY](https://en.wikipedia.org/wiki/New_York), US (operations) Toronto, Ontario, Canada (legal domicile) |
| **Area served** | Worldwide |
| **Key people** | [David Thomson](https://en.wikipedia.org/wiki/David_Thomson,_3rd_Baron_Thomson_of_Fleet) (Chairman) James C. Smith (CEO)[[1]](https://en.wikipedia.org/wiki/Thomson_Reuters#cite_note-C4WDefault-4427441-1) |
| **Revenue** | Decrease US$ 12.607 billion (2014)[[2]](https://en.wikipedia.org/wiki/Thomson_Reuters#cite_note-2011_AR-2) |

**11.Can you tell me the ceo of** Thomson Rureurs **along with managing Director for** Thomson Rureurs**?**  [David Thomson](https://en.wikipedia.org/wiki/David_Thomson,_3rd_Baron_Thomson_of_Fleet) (Chairman)  
James C. Smith (CEO)

**12.How you go to your company?**   
  
I go in bus (bus number:320D)->   
Marathahalli Victoria Layout   
1. 13.2 km,17 mins Old Airport Rd   
2. 14.9 km,26 mins Outer Ring Rd   
Varthur Rd, MGA Hospital   
  
  
**13.Who is your project manager now & HR?**   
  
My project manager is prateek goyal.(ours being a small company,he is acting both as project manager and TL,we report to him).And our HR is Ravi. 

**14.Can you name two of your colleges?**   
  
1.Rahul Sharma 2. Lipika Mukharji  
  
**15.From when you are working in sunpro cyber system?**   
  
I am working since from april 2013   
  
**16.When you got you recent hike?**   
  
In march 2015   
  
**17.How much you got?**   
  
They made my salary to 27000 per month.(gross salary)   
  
**18.how much hike you got during joining** Thomson Rureurs.  
I got 75% hike i.e 12,000 to 20,000(due to the standards of company and market)   
  
**19.What is your take home?**   
  
My take home is 23,500(Net salary)   
  
**20.What is your expecting take home?**   
  
32,000(3,84,000)   
  
**21.what is your expected Gross salary?**   
  
35,000(4.2 lakhs)   
  
**22.What is your mode of payment?**   
  
 they transfer in my account

**23.So you are depositing your cheque in some bank know can you give the bank statement for that?**   
  
Yes,I can provide (ICICI)   
  
**24.What cheque they are providing to you open cheque(self cheque) or barred cheque(cross cheque,with company name)?**   
  
Open cheque.   
  
**25.What are your heads?**

**Software’s**   
--------------------------------------------------   
  
**Java**-1.5(Java Standard Edition 7 (1.7.0) (July 28, 2011)   
  
**Oracle**-9i   
  
**Jboss**-4.2(100 MB),5.1(130 mb)(http://www.jboss.org/jbossas/downloads/)   
  
**Netbeans**-6.5 (www.netbeans.org/downloads) JDK5 r JDK6 is needed for this   
  
**Edit plus**-3.10 (www.editplus.com, Sangil Kim,ES computing ),shareware,Aug 08-2011, Microsoft Windows OS   
  
**Toad**-8.6(http://www.quest.com/toad/)-freeware, Jim McDaniel   
  
**Jquery**-1.4.2(Release of 1.4.2:February 19, 2010) (Started:jan-2006,Stable Release: August 26, 2006),Latest version:1.6.2 June 30, 2011 ,Author:John resig,Open source, jquery.com,Write less-Do more   
  
**Spring**-2.5(Started:June 2003)(2.5 relased:November 2007)(Site:www.springsource.org)-opensource-The current version is 3.0.5(3.0.5 release:October 29, 2010),Rod Johnson(Expert One-on-One J2EE Design and Development)   
  
**Hibernate**-3.5.0(Released:31-03-2010)(www.hibernate.org/downloads),Jboss comunity,RED Hat(Developers),Gavin King,free ware, 3.6.6 Final(july 21,2011)   
  
**Apache Tomcat**-5.0   
  
**Junit**-4. 4.8.2, http://junit.sourceforge.net, Kent Beck, Erich Gamma, David Saff   
  
  
**eclipse**-eclipse.org,open source   
  
**Ant**-X   
  
**log4j**-X   
  
**SoapUI**-3.6.1   
  
**Real Time Questions:**   
  
**1.How do you install your war file in Jboss?**   
  
**2.What is the flow of Junit?**   
  
**3.What is the structure of a war file?**   
  
[](http://3.bp.blogspot.com/-SqVVLB5DnP0/TlYpmBYCVKI/AAAAAAAAAJw/VI9HTLk6nEU/s1600/i4101167.gif)   
  
**4.What is the structure of your project?**   
  
**5.What is the difference between Primary key and Unique key?**   
  
Unique Key: Identify the row by uniquely, means if you are inserting a records into the table suppose you already inserted a record with ID 101 and another record you are inserting with the same ID then it will give an error(unique key voilation).   
  
Prmary Key:Once you define a primay key on a particular column then a column become a mandatory field.That means you need to insert something on it, you can not leave as a blank otherwise it will give an error as primary key voilation.   
  
A column with Unique constraint can have hundreds of NULL's.   
  
Primary key-> Not Null + Unique   
  
A table/relation can have only one column with primary key, whereas all the columns can be set to Unique contraint.   
  
  
Primary Key..   
  
1.It will not accept null values.   
2.There will be only one primary key in a table.   
3.Clustered index is created in Primary key.   
4.Primary key allows each row in a table to be uniquely identified and ensures that no duplicate rows exist.   
  
Unique Key..   
  
1.Null values are accepted.   
2.More than one unique key will be there in a table.   
3.Non-Clustered index is created in unique key.   
4.Unique key constraint is used to prevent the duplication of key values within the rows of a table and allow null values.   
  
**6.What you do exactly in your company After going there?**   
  
**7.Have you ever used procedures in your project if yes write code and explain how?**   
  
**8.What is the difference between prepared statement and callable statement?**   
  
**9.Interviewer Questions?**   
  
Versions,flows   
  
Netbeans version   
Jboss flow(how we use),ear or war file structure   
Oracle-Unique key,primary key   
Ajax flow(complete)   
Tickets raise SSL   
Test cases flow.   
What is ....?   
For example spring.....   
  
Change my resume   
  
**1.What is a Design Pattern?**   
  
Design patterns are recurring solutions to design problems.   
  
**2.What is a pattern?**   
  
“Pattern” as the name suggests, means series of events occurring in a definite order.   
  
**3.How many kinds of Design Patterns are there?**   
  
two kinds   
  
**4.What are they?**   
  
i)java Design Patterns   
ii)j2ee Design Patterns   
  
**5.What are java Design Patterns?**   
  
Java Design Patterns are of three types   
  
**6.What are those three types?**   
  
i)Creational Patterns   
ii)Structural Patterns   
iii)Behavioral Patterns   
  
**7.What does creational patterns means?**   
  
All the creational patterns define the best possible way in which an object can be instantiated. These describes the best way to CREATE object instances.   
  
**8.Can you name few creational patterns?**   
  
There are five types of Creational Patterns.   
1. Factory Pattern   
2. Abstract Factory Pattern   
3. Builder Pattern   
4. Prototype Pattern   
5. Singleton Pattern   
  
**9.What does Structural Patterns means?**   
  
Structural Patterns describe how objects and classes can be combined to form larger structures. The difference between class patterns and object patterns is that class patterns describe abstraction with the help of inheritance and how it can be used to provide more useful program interface. Object patterns, on other hand, describe how objects can be associated and composed to form larger, more complex structures.   
  
**10.Can you name few Structural Patterns?**   
  
There are seven structural patterns described. They are as follows:   
  
Patterns.   
1. Adapter Pattern   
2. Bridge Pattern   
3. Composite Pattern   
4. Decorator Pattern   
5. Facade Pattern   
6. Flyweight Pattern   
7. Proxy Pattern   
  
**11.What does Behavioral Patterns means?**   
  
Behavioral patterns are those which are concerned with interactions between the objects. The interactions between the objects should be such that they are talking to each other and still are loosely coupled. The loose coupling is the key to n-tier architectures. In this, the implementation and the client should be loosely coupled in order to avoid hard-coding and dependencies.   
  
**12.Can you name few Behavioral Patterns?**   
  
The behavioral patterns are:   
  
1. Chain of Resposibility Pattern   
2. Command Pattern   
3. Interpreter Pattern   
4. Iterator Pattern   
5. Mediator Pattern   
6. Momento Pattern   
7. Observer Pattern   
8. State Pattern   
9. Strategy Pattern   
10. Template Pattern   
11. Visitor Pattern   
  
**13.Can you name few j2ee design Patterns?**   
  
Intercepting Filter   
Front Controller   
Composite View   
View Helper   
Dispatcher View   
Service to Worker   
Business Delegate   
Session Facade   
Service Locator   
Transfer Object Assembler   
Value List Handler   
Composite Entity   
Transfer Object   
Service Activator   
Data Access Object   
  
**Java Design Patterns**   
**--------------------------------------------------------------**   
  
**Singleton Design Pattern**   
**--------------------------------------------------------------**   
  
**Rules to implement Singleton**   
**--------------------------------------------------------------**   
  
1. From the example code above you can see that a singleton has a static variable to keep it sole instance.   
2. You need to set the class constructor into private access modifier. By this you will not allowed any other class to create an instance of this singleton because they have no access to the constructor.   
3. Because no other class can instantiate this singleton how can we use it? the answer is the singleton should provide a service to it users by providing some method that returns the instance, for example getInstance().   
4. When we use our singleton in a multi threaded application we need to make sure that instance creation process not resulting more that one instance, so we add a synchronized keywords to protect more than one thread access this method at the same time.   
5. It is also advisable to override the clone() method of the java.lang.Object class and throw CloneNotSupportedException so that another instance cannot be created by cloning the singleton object.   
  
**What is Singleton Design Pattern?**   
  
Singleton pattern used when we want to allow only a single instance of a class can be created inside our application.Using this pattern ensures that a class only have a single instance by protecting the class creation process, by setting the class constructor into private access modifier.   
  
**Example for Singleton**   
  
To get the class instance, the singleton class can provide a method for example a getInstance() method, this will be the only method that can be accessed to get the instance.   
  
public class Service {   
  
private static Service instance = new Service();   
  
private Service() {   
}   
  
public static synchronized Service getInstance() {   
return instance;   
}   
  
public void doSomething() {   
for (int i = 0; i < 10; i++) {   
System.out.println("i = " + i);   
}   
}   
  
@Override   
protected Object clone() throws CloneNotSupportedException {   
throw new CloneNotSupportedException("Clone is not allowed.");   
}   
}   
  
And this is how we use the Service singleton class.   
  
public class ServiceDemo {   
public static void main(String[] args) throws Exception {   
  
// Gets an instance of Service object and calls the doSomething method.   
  
Service service = Service.getInstance();   
service.doSomething();   
}   
}   
  
**Output Image**   
  
[](http://4.bp.blogspot.com/-VslRhVYUrDc/ThnJ5Varg2I/AAAAAAAAAAw/0jbyvsh1rIE/s1600/Singleton.bmp)   
  
**Factory Design Pattern**   
  
**What is Factory Design Pattern?**   
  
Factory of what? Of classes. In simple words, if we have a super class and n sub-classes, and based on data provided, we have to return the object of one of the sub-classes, we use a factory pattern.   
  
**Example for Factory**  
  
Let’s suppose an application asks for entering the name and sex of a person. If the sex is Male (M), it displays welcome message saying Hello Mr. and if the sex is Female (F), it displays message saying Hello Ms .   
  
**Person.java**   
  
public class Person {   
// name string   
public String name;   
// gender : M or F   
private String gender;   
  
public String getName() {   
return name;   
}   
  
public String getGender() {   
return gender;   
}   
}// End of class   
  
**Male.java**   
  
public class Male extends Person {   
public Male(String fullName) {   
System.out.println("Hello Mr. "+fullName);   
}   
}// End of class   
  
**Female.java**   
  
public class Female extends Person {   
public Female(String fullNname) {   
System.out.println("Hello Ms. "+fullNname);   
}   
}// End of class   
  
**SaluationFactory.java**   
  
public class SalutationFactory {   
  
public static void main(String args[]) {   
  
SalutationFactory factory = new SalutationFactory();   
factory.getPerson(args[0], args[1]);   
  
}   
  
public Person getPerson(String name, String gender) {   
if (gender.equals("M"))   
return new Male(name);   
else if(gender.equals("F"))   
return new Female(name);   
else   
return null;   
}   
}// End of class   
  
**Output Image**   
  
[http://2.bp.blogspot.com/-Ylx86i4HiCc/ThnVD477RKI/AAAAAAAAABU/BaP26msp9TQ/s320/Factory.bmp](http://2.bp.blogspot.com/-Ylx86i4HiCc/ThnVD477RKI/AAAAAAAAABU/BaP26msp9TQ/s1600/Factory.bmp)   
  
  
**JBOSS Installation:**   
  
**Ref:http://today.java.net/pub/a/today/2005/03/01/InstallingJBoss.html**   
  
**Index:**   
  
-Application Server (5 points)   
-Installing JBoss (4 points)   
-Running JBoss (3 points)   
-Exploring Directory structure(3 points)   
-Server Configurations(4 points)   
-Configuring JBoss Services(3 points)   
-Deploying Applications to JBoss(1 point)   
-Total (23 points)   
  
  
**Application Server:**   
  
**1.What is JBoss?**   
  
JBoss is a popular,open source J2EE application server.   
  
**2.What is great about it?**   
  
Several recent surveys put its market share at above 30 percent and single it out as the only application server whose market share is on the rise.   
  
**3.What is an J2EE container?**   
  
As you well know, compiled Java code cannot run on its own--it must be run inside of a JVM. J2EE classes require an additional step: they must be run inside of a J2EE container (which in turn runs inside of a JVM).   
  
**4.What is an application server?**   
  
An application server is nothing more than a loosely coupled collection of containers (or "services") that correspond to the various parts of the J2EE API.   
  
**5.Tell some facts here?**   
  
The open source Apache web server runs more than two-thirds of all web sites today. JBoss isn't quite at that level of pervasiveness, but it shouldn't be ignored when considering enterprise-quality application servers just because it is free.   
  
**Installing JBoss:**   
  
**1.Explain the installing process of JBoss?**   
  
The latest JBoss release, 4.0.1, requires Java 1.4 or higher. Be sure that you have the 1.4 SDK (Software Development Kit) installed and not just the JRE (Java Runtime Environment).   
  
**2.From where we download JBoss?**   
  
http://www.jboss.org/jbossas/downloads.html,Its a division of RedHat.   
  
My downloaded version:http://sourceforge.net/projects/jboss/files/JBoss/JBoss-4.0.2/jboss-4.0.2.zip/download (59.02 mb)   
  
**Note:**Don't download the source ("src") or the release candidate ("RC") bundles.   
  
**3.Is there a platform specific download for JBoss?**   
  
There isn't a platform-specific JBoss distribution. Whichever one you download will work on Windows, Linux, Mac OS X, or any of the various flavors of Unix.   
  
**4.What is the size of JBoss current Release?**   
  
The current release is about 65MB.look for the ones named jboss-4.0.1.\*.Download one of them and unzip it to the directory of your choice.   
  
(For best results, avoid directory names with spaces in them like Program Files.) Create an environment variable called JBOSS\_HOME that points to the directory.   
  
**Note:**There are no installation scripts to run. At this point, you are ready to fire up JBoss and take a look around.   
  
**Running JBoss:**   
  
[](http://1.bp.blogspot.com/-gZTmYfyF96I/TldzJbyiwpI/AAAAAAAAAKA/-IskCz0E9s8/s1600/jboss_startup.gif)   
  
**1.How to run JBoss?**   
  
To start JBoss, change to the JBOSS\_HOME/bin/ directory and type run (run.bat on Windows, run.sh on Linux/Mac OS X/Unix).   
  
**Note:** A long stream of output similar to the abbreviated version shown below comes (Figure 1. JBoss initialization output)   
  
JBoss bootstrap environment.   
JBOSS\_HOME:/Library/jboss   
  
-------------------------------------   
-------------------------------------   
  
INFO [ServerInfo]   
INFO [Server]   
--------------------------------------   
  
JBoss\_4\_0\_1 date=200412230944 Started in 32s:508ms   
  
**2.What JBoss looks at this point?**   
  
1.key environment variables such as JBOSS\_HOME.   
2.boots the microkernel (the core JBoss process)   
3.loads the individual J2EE services   
4.deploys all WAR (Web ARchive) and EAR files it finds in the deploy/ directory   
5.JBoss is fully up and running when it reports Started in XXs:YYms.   
  
**3.State some problems or exceptions occur at this stage?**   
  
1.Any service that can't be started will throw an exception during this process   
2.default port assignments that conflict with applications already running on the system.   
eg:-Tomcat comes bundled with JBoss. If you already have a running instance of Tomcat using the default ports (8005 and 8080)   
  
**Exploring Directory Structure:**   
  
[](http://1.bp.blogspot.com/-8audagSqDbc/Tldy01j0vlI/AAAAAAAAAJ4/FSn8nDz6RFM/s1600/jboss_dir_structure.gif)   
  
**1.What are the important sub directories of JBoss?**   
  
Two most important to the typical J2EE developer are the bin/ and server/ directories.   
  
**2.Explain about bin and server directories?**   
  
1.bin/ directory contains the startup and shutdown scripts for JBoss.   
2.server/ contains the directories where we will eventually deploy our applications.   
3.others are of secondary importance to us.   
  
**3.Explain little about other directories too?**   
  
1.The client/ directory contains JARs used by remote clients.   
2.The docs/ directory contains various license and example files.   
3.The lib/ directory contains the core JBoss JARs.   
  
**Server Configurations:**   
  
**1.What Server configurations are there in JBoss?**   
  
If you look in the JBOSS\_HOME/server/ directory, you should see three named Server Configurations: all, default, and minimal.   
  
**2.Explain in detail about all the configurations?**   
  
1.If you don't specify a configuration on boot, JBoss uses the default configuration.   
2.The default configuration is the one that fulfills the J2EE 1.4 spec, so it is a reasonable place for most developers to start.   
3.The minimal configuration is bare dirt--nothing but a JNDI and a Log4j service.   
4.All is at the opposite end of the spectrum--everything in the minimal and default configurations, plus advanced services like clustering.   
  
**3.How to shut down JBoss and how to run it with minimal configuartion?**   
  
1.Press Ctrl-C in the JBoss console window to shut it down.   
2.Now type run -c minimal(You should see far fewer services launch and a dramatically shorter startup time.)   
  
**4.Can we create a new configuration for JBoss?**   
  
1.copy one of the existing directory trees and give it a new name.   
2.copy the default/ directory to a new one named myapp/   
3.Now start JBoss using the new configuration--press Ctrl-C to stop the currently running configuration, and then type run -c myapp.   
  
**Configuring JBoss Services:**   
  
**1.How many subdirectories are there in server configuration?**   
  
three main subdirectories: conf/, deploy/, and lib/   
  
**2.Explain in detail about subdirectories of server configuration?**   
  
1.The conf/ directory, as you might guess, contains configuration files.   
  
The conf/ directory, as you might guess, contains configuration files. The main config file is jboss-service.xml. This is one place (but not the only place) where settings like port numbers can be found.   
  
2.The lib/ directory contains the JAR files that make up the JBoss services.   
  
3.The deploy/ directory contains the J2EE services, as well as any WAR and EAR files that should be deployed.   
  
**3.Explain how to undeploy the application?**   
  
To see JMX in action, open a new terminal window next to the JBoss console, change to JBOSS\_HOME/server/myapp/deploy, and create an undeploy/ directory. (It can be named anything you'd like, but undeploy/ is a common choice.) Move hsqldb-ds.xml to the undeploy/ directory and watch the JBoss console.   
  
**Deploying Applications to JBoss:**   
  
[](http://1.bp.blogspot.com/-bIzgXVs1EVc/Tldzdv2NV0I/AAAAAAAAAKI/jRK7C6d-4iM/s1600/hello_world.gif)   
  
  
**1.Explain how you deploy application in JBoss?**   
  
1. copytest.war in deploy/ directory.   
2.In the JBoss console window, you should see the test application being deployed.   
3.Open a web browser and go to http://localhost:8080/test   
4.If you move test.war to the undeploy/ directory, JBoss will dynamically unload it.   
  
  
  
**Ref:**http://www.vogella.de/articles/JUnit/article.html   
**Ref:**http://netbeans.org/kb/docs/java/junit-intro.html   
**Ref:**http://wiki.netbeans.org/NetbeansedJUnit   
**Ref:**http://www.slideshare.net/gembel\_linux/simple-unit-testing-with-netbeans-61-presentation(Very Good)   
-http://www.slideshare.net/gembel\_linux/simple-unit-testing-with-netbeans-61-presentation/download   
**Ref:**http://junit.sourceforge.net/doc/faq/faq.htm(Super Good)   
**Ref:**http://pub.admc.com/howtos/junit4x/intro-chapt.html   
  
**1.What is Unit Testing?**   
  
It is a piece of code that tests a specific functionality.   
  
**2.What is JUnit?**   
  
JUnit 4.x is a test framework which uses annotation to identify the methods which contain tests.   
  
JUnit is a unit testing framework for the Java programming language.   
  
JUnit has been important in the development of test-driven development(TDD).   
  
Cross-platform   
  
Unit Testing Tool   
  
Junit Tests Increase the stability of the code.   
  
In NetBeans It comes Embedded by default(test library folder)   
  
**3.Who created JUnit?**   
  
Kent Beck, Erich Gamma, David Saff   
  
**4.How to write a test with JUnit?**   
  
-Annotate a method with @org.JUnit.Test   
-Use a method provides by JUnit to check the expected result of the code execution versus the actual result .   
-Syntax:{yourClassName}Test.java   
-Test Package Folder for each module.   
  
**5.With what tool or class we test?**   
  
Use a tool like Eclipse or the class "org.junit.runner.JUnitCore" to run the test.   
  
**6.How to install JUnit?**   
  
-Download JUnit4.x.jar from the JUnit website http://www.junit.org. (Downloads tab:https://github.com/KentBeck/junit/downloads)   
-Previous site is http://junit.sourceforge.net. (Download:http://sourceforge.net/projects/junit/)   
-http://sourceforge.net/projects/junit/files/junit/4.8.1/junit-4.8.1.jar/download (231 KB)   
-The download contains the "junit-4.\*.jar" which is the JUnit library   
-Add this library to your Java project and add it to the classpath.   
  
**7.Explain what is meant by Test Case?**   
  
Test case is a condition which is executed for expected output with predefined set of steps with known inputs. Generally a test case have   
  
1) Precondition   
2) Steps to execute   
3) Input data   
4) Expected output   
5) Status (Pass/Fail)   
  
Note:Test Scenario is 'What to be tested' and Test Case is 'How to be tested'.   
  
**8.Explain what is meant by Test Scenario?**   
  
Test Scenario is set of test cases. What it means, If you have to withdraw money from an ATM machine, then it is a scenario. But to withdraw money, you need to execute many test cases, needs to provide many inputs and you get many outputs and finally your money with receipt of transaction.   
  
**9.Explain what meant by Test Class?**   
  
A Test Class to be any class that contains test methods   
  
**10.Explain what is meant by Test Suite?**   
  
A TestSuite is a Composite of Tests. It runs a collection of test cases.   
  
TestSuite suite= new TestSuite();   
suite.addTest(new MathTest("testAdd"));   
suite.addTest(new MathTest("testDivideByZero"));   
  
Alternatively, a TestSuite can extract the tests to be run automatically. To do so you pass the class of your TestCase class to the TestSuite constructor.   
  
TestSuite suite= new TestSuite(MathTest.class);   
  
  
This constructor creates a suite with all the methods starting with "test" that take no arguments.   
  
A final option is to do the same for a large array of test classes.   
  
Class[] testClasses = { MathTest.class, AnotherTest.class }   
TestSuite suite= new TestSuite(testClasses);