Guidelines

Free

[**Java Tutorial**](http://www.tutorialspoint.com/java/)

* Java Tutorial for Beginners - Learning Java in simple and easy steps : A beginner's tutorial containing complete knowledge of Java Syntax Object Oriented Language, Methods, Overriding, Inheritance, Polymorphism, Interfaces, Packages, Collections, Networking, Multi threading, Generics, Multimedia, Serialization, GUI.  
    
  Link : <http://www.tutorialspoint.com/java/>
* Java Tutorial for Beginners who take part in **front end**   
    
  Link : https://www.youtube.com/playlist?list=PLE7E8B7F4856C9B19

**Installing Java**

1.Make sure you download java SE 1.8 for the product to exhibit expected results.

2. <http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html>

3. Add repositorysudo add-apt-repository ppa:webupd8team/java

sudo apt-get update

4. Manually run the java installer using code  
sudo apt-get install oracle-java8-installer

5. To check the version of Java   
  
 java -version  
  
   
 6. To make sure that you are running the correct version of Java, use this command to set your choice

sudo update-alternatives --config java

[**Using Maven within the Eclipse IDE - Tutorial**](http://www.vogella.com/tutorials/EclipseMaven/article.html)

Eclipse Maven This tutorial describes the usage of Maven within the Eclipse IDE for building Java applications based on the m2e plug-in.

This is a complete video tutorial i.e., using Maven in Eclipse;   
  
Link :

<http://www.vogella.com/tutorials/EclipseMaven/article.html#example_eclipsemavenproject_runningthebuild>

**Installing Eclipse**

1. Download Eclipse from the link based on your OS type 32-bit or 64-bit  
     
   Link : http://www.eclipse.org/downloads/
2. Extract Jar file to directory /opt/

open the terminal  
  
cd /opt/

sudo tar -zxvf ~/Downloads/eclipse-\*.tar.gz

3) Create a Launcher for Ecplise   
   
   
 gksudo gedit /usr/share/applications/eclipse.desktop

* 4) A text file will be opened   
     
   [Desktop Entry]  
   Name=Eclipse 4  
  Type=Application  
  Exec=/opt/eclipse/eclipse  
  Terminal=false  
  Icon=/opt/eclipse/icon.xpm  
  Comment=Integrated Development Environment  
  NoDisplay=false  
  Categories=Development;IDE;  
  Name[en]=Eclipse

**Guidelines for Project Management**

# **Using Doodle**

# **Doodle simplifies scheduling**

This is scheduling tool for project meeting   
   
As well as polling between the group mates for their presence in meeting   
  
This tool is used by us for perfect scheduling of meetings

**Tiaga**

Taiga is a project management platform for agile developers & designers who want a simple, beautiful tool that makes work truly enjoyable.

Taiga is an open source, agile project management platform intended for smaller (fewer than 50) teams of developers, designers, project managers and other agile methodology practitioners in fields from marketing to engineering and beyond.

Applications include project collaboration, bug tracking (i.e., tracking tickets), reporting, time tracking and task management. Taiga also includes customizable agile functionality, such as Kanban boards and backlogs, as well as the ability to tracks user stories and sprints.

Taiga offers on-premise and Web-based deployments compatible with most operating systems, including iOS.

[Agile Project Management with Kanban: Eric Brechner Presentation](https://www.youtube.com/watch?v=CKWvmiY7f_g)

This video was originally published by Microsoft depicts how a project is managed professional

which motivate the team members.

***Link*** *:* <http://research.microsoft.com/apps/video/default.aspx?id=244904&l=i>   
**Link** : [*https://www.youtube.com/watch?v=CKWvmiY7f\_g*](https://www.youtube.com/watch?v=CKWvmiY7f_g)

[Web Scraping 201: finding the API](http://www.gregreda.com/2015/02/15/web-scraping-finding-the-api/)

* When a page is rendered client-side, scraping can be difficult. Here’s how to find the API used so you’re able to get the data needed.  
    
  Link : http://www.gregreda.com/2015/02/15/web-scraping-finding-the-api/  
    
    
  **Mockups for client and server**
* Mockups for client and server are to be enhanced   
     
  use this software for mockups and a perfect design of plan is depicted through it   
    
  **Link :** https://balsamiq.com/products/mockups/#
* Mockups intentionally makes your wireframes scream both.This is not final and I just threw this together, eliciting honest feedback, which results in better wireframes, easier-to-use features, and happier users of your product. That's what it's all about.

Your whole team can come together around the right design using Mockups. It's so easy to learn, both clients and customers can use it ([for free](http://webdemo.balsamiq.com/) even), to describe their needs more clearly.  
  
  
  
**Tracking Time**  
  
1. Easier tracking, advanced reporting, better collaboration, powerful integrations  
  
2. Time Tracking app that helps to manage projects, track working times and measure productivity.  
  
  
Link : <https://trackingtime.co/>

Make better decisions based on detailed time sheets with in-depth stats on your team’s working time and accomplishments

**Project management**

Enhance team productivity with real-time updates and notifications

Create more transparency in project completions

Improve project budgeting, time forecasts, and estimates

Remote working gives you more flexibility

Manage clients, projects and teams

**Learning Git**   
  
Link 1 : <http://rogerdudler.github.io/git-guide/>  
Link 2 : <https://www.kernel.org/pub/software/scm/git/docs/gittutorial.html>  
  
 **How to write messages in Git**  
  
Link : <http://chris.beams.io/posts/git-commit/>  
  
 **Very simple on line tool to learn Git**  
  
Link : <https://try.github.io/levels/1/challenges/1>  
  
  
**Download Git Graphic Tool**  
  
 Link : https://www.sourcetreeapp.com/  
 **Guidelines for Database**   
  
  
**Vertabelo :** Vertabelo is a visual database design tool available through a web browser.  
  
  
Fully-featured online tool for database design – simple but powerful. Create a database model, share it with your team, and finally generate SQL scripts insteadWith Vertabelo you have access to your models anytime and from anywhere in the world since our modeler works completely in a browser.  
  
Link : https://www.youtube.com/watch?v=hU-A08K08-Y

**Design Document :**

**Unit Test Plan:** This document describes the Test Plan in other words how the tests will be carried out.   
This will typically include the list of things to be Tested, Roles and Responsibilities, prerequisites to begin Testing, Test Environment, Assumptions, what to do after a test is successfully carried out and what to do if test fails.

This is the first and the most important level of testing. As soon as the programmer develops a unit of code the unit is tested for various scenarios. As the application is built it is much more economical to find and eliminate the bugs early on. Hence Unit Testing is the most important of all the testing levels. As the software project progresses ahead it becomes more and more costly to find and fix the bugs.

In most cases it is the developer’s responsibility to deliver Unit Tested Code.

**Unit Testing Tasks and Steps:**Step 1: Create a Test Plan   
Step 2: Create Test Cases and Test Data   
Step 3: If applicable create scripts to run test cases   
Step 4: Once the code is ready execute the test cases   
Step 5: Fix the bugs if any and re test the code   
Step 6: Repeat the test cycle until the “unit” is free of all bugs

**Test Case:**Test Case describes exactly how the test should be carried out.

#### Additionally the following information may also be captured:  a) Unit Name and Version Being tested  b) Tested By  c) Date  d) Test Iteration (One or more iterations of unit testing may be performed **Steps to Effective Unit Testing:**

**1) Documentation:**Early on document all the Test Cases needed to test your code. A lot of times this task is not given due importance. Document the Test Cases, actual Results when executing the Test Cases, Response Time of the code for each test case. There are several important advantages if the test cases and the actual execution of test cases are well documented.

a. Documenting Test Cases prevents oversight.   
b. Documentation clearly indicates the quality of test cases   
c. If the code needs to be retested we can be sure that we did not miss anything   
d. It provides a level of transparency of what was really tested during unit testing. This is one of the most important aspects.   
e. It helps in knowledge transfer in case of employee attrition   
f. Sometimes Unit Test Cases can be used to develop test cases for other levels of testing

**2) What should be tested when Unit Testing:**A lot depends on the type of program or unit that is being created. It could be a screen or a component or a web service. Broadly the following aspects should be considered:

a. For a UI screen include test cases to verify all the screen elements that need to appear on the screens   
b. For a UI screen include Test cases to verify the spelling/font/size of all the “labels” or text that appears on the screen   
c. Create Test Cases such that every line of code in the unit is tested at least once in a test cycle   
d. Create Test Cases such that every condition in case of “conditional statements” is tested once   
e. Create Test Cases to test the minimum/maximum range of data that can be entered. For example what is the maximum “amount” that can be entered or the max length of string that can be entered or passed in as a parameter   
f. Create Test Cases to verify how various errors are handled   
g. Create Test Cases to verify if all the validations are being performed

**3) Automate where Necessary:**Time pressures/Pressure to get the job done may result in developers cutting corners in unit testing. Sometimes it helps to write scripts, which automate a part of unit testing. This may help ensure that the necessary tests were done and may result in saving time required to perform the tests.