Summary and some tips
DAY 1- UNIX

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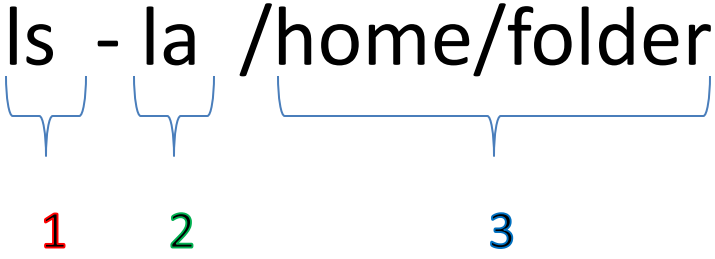
Unix commands

- The general structure of a command



- 1 - command
- 2 - options
- 3 - arguments

Useful commands

- ls :list out whatever has been asked for
- cd :change directory
- . :in the current directory
- cd ../ :get outside from current directory
- cd - : to switch between the previous and the current directory
- cd ~ : take you to the home directory
- ls -la : will list all the files with more information

Useful commands

- mkdir : make new directory
- rmdir : remove the directory
  - Pre-requisite : the directory must be empty
- cp : copy files
- mv : move files
  - It operates like Ctrl + X in windows
- rm -r : will remove recursively
  - Use this when you have other folders present in the directory which you want to remove
- cat : concatenate and print
- chmod : used to change the file permissions

Useful commands

- Ctrl + c : to break
- *./filename* : to execute a file
- man : kind of a manual for all the linux commands
  - Example : *man grep*
- top : to see the processes running, memory consumption etc
  - Example: *top*
- kill : to kill the ongoing process
  - Example : *kill* pid

Useful commands

- Some example for *grep*:
  - *grep* “source” README
  - This command will search the string in README file and list all the lines with the string
  - *grep* “Source” README
  - This will give no output
  - *grep -i* “Source” README
  - This will give the output same as the first case
  - *grep -n -i* “Source” README
  - This will add line numbers in the output

Last Exercise

- Exercise 4:
  - *grep* “string” *-r .*

Last Exercise

- Exercise 4:
  - *grep “string” –r .*
  - This command will search for the string in all the files recursively , but in the current directory (.) and the sub-directories

Day_2

Java Introduction

Opening gedit

- Open gedit via the command line:
  - gedit *filename.java* &
- Use of "&" is done to make gedit run in background
- In case & is not entered
- Use Ctrl + Z to temporarily stop the gedit from running
- Then type bg from the terminal
- That will make gedit run in background

Run java from command line

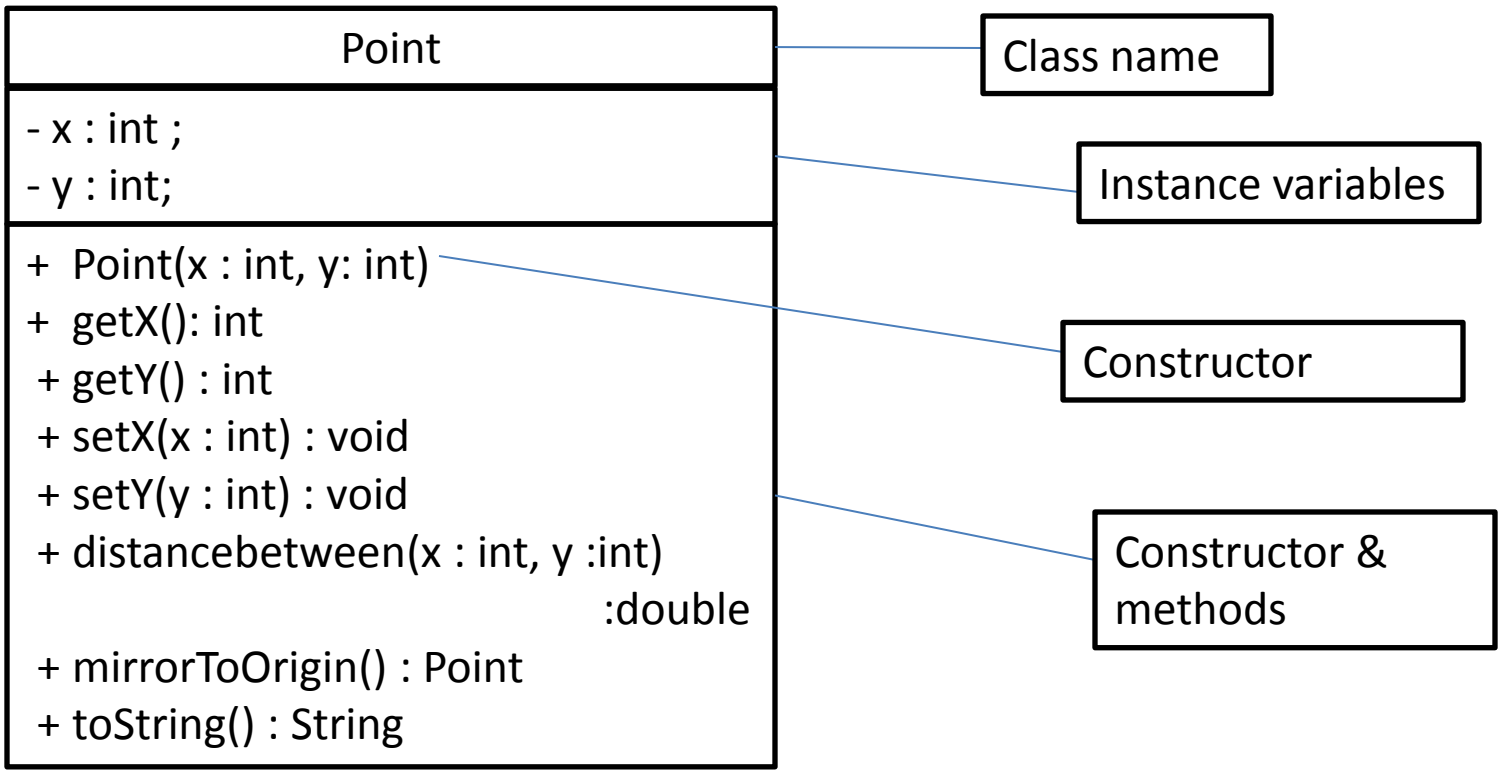
- Refer the lecture slides on how to compile and run java from command line

Day_3

Advanced Java

Classes & Objects

- The contents of the Point class are shown in class diagram



Classes & Objects

- In the exercise 2 project understand the implementation first and then try to incorporate your own class named Student which extends the class person
- This class will have two instance variables both of type string
  - University
  - Faculty e.g. Civil Engineering
- Two methods
  - getDetails() : will return an array
  - toString() : will return a String

Create a new class in Netbeans

- Project name
  - Source Packages
    - Exercise_2
- Right click on exercise_2 and choose new -> java class
- Name the java class to student and implement the class

Hints on the task

- Read the comments if you do not understand what has been implemented
- Refer to the implementation of the previous classes and try to write a student class
- Also you can send us an email or discuss the doubts during the rest of the refresher course

Creating a javadoc (optional)

- To create a javadoc it is necessary to write comments as shown in example below

```
/**
*   Task 1
*/
```

- After commenting in this fashion in the menu bar on the top select Run-> Generate Javadoc
- If you are using windows netbeans will open a ".html" link in your internet browser
- If it does not open the .html link, you can go to the location where your project is saved and find it in
  - E.g. Exercise_1->dist->javadoc->exercise_1

Creating a javadoc

- You can choose any of the .html files and play around

Useful links

- First install Netbeans from here
  - http://www.oracle.com/technetwork/java/javase/downloads/index.html
- You can refer to following links for java
  - http://docs.oracle.com/javase/tutorial/
  - https://in.udacity.com/course/intro-to-java-programming--cs046
- For version control(day 5)
  - https://www.tutorialspoint.com/git/