Offline Tutorial: Very beginning git

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Why are we even reading this.

Throughout the course COMP3111 we are working on a chatbot (chatting-robot) on the instant messager software LINE. One of the easiest way to do is using the example provided by LINE developer site and it is written in Java Enterprise Edition (J2EE). In order to complete the project you will need to pick up a set of skills, which is already *minimized* when we design the project, as listed below:

1. git, *a version controlling repository tools.*
2. Java, *an object oriented programming language.*
3. JUnit, *a testing suite for Java.*
4. Database, *a program that manage your data.*
5. Spring, *a framework that provide web service in Java Enterprise Edition.*
6. Gradle, *a package management tools, like makefile, Ant, Maven.*

As you can see we said "minimized" but there are still a lot to cover. It is impossible to cover all these contents in the lecture or tutorial. Besides, you should also develop the skill to pick up new contents therefore we are here. You are supposed to read this document at home and you will be given chance to practise them at lab. In any case you have encounted difficulty in reading this document, you can post your question on the forum or contact the TA for help.

1 Background

Git is a software that allows you to do version controlling for an individual at local side or for team collaboration at a server. There is a lecture note covering git. However at the time this document is released you may not have the lecture note yet. We gather some useful resources that you can learn and try git on your own. You can pick one row from each topic below. We would skip two important questions in your head: 1) Why should we use git, and 2) What are the advantages of using git. We hope you can figure out the answers while you taste it.

Topics	**Resources**
Concept	Web: What is git – Atlassian
	Video: Git Basics Episode 2 – What is Git? Video: Git Basics Episode 3 – Get Going with Git
Basic	Web: Git Basics
	Interactive Tutorial – by Code School
	Interactive Tutorial – by Atlassian
	Web: git for beginners
Branching	Video: Branching – by Codemy School Video: Merge – by Codemy School
	Interactive Tutorial – by learngitbranching.js.org
	Web: Using Branches – by Atlassian Interactive Tutorial: Branching – by Atlassian
Cheatsheet	Atlassian's Cheatsheet
	GitHub's Cheatsheet

✍ **Learn More:**

- Git Reference Manual
- Pro Git – Scott Chacon and Ben Straub

2 Self Test

Try to perform the following scenario using git commands.

Scene 1: Checkout the content from a remote repository https://github.com/khwang0/gitTest/. Add a folder with your student ID and commit it with the message “Hi”.

Scene 2: Create a local repository. Add and stage two files “a.txt” and “b.txt” into it. Create another branch called “test” and try to modify the file “b.txt” and add a file called “c.txt”. Stage it. Going back to your master branch and merge the change.

Scene 3: After completing the above scene, delete the file “b.txt”. Before you stage (commit) the change, you feel regret about it. Revert your change.

Scene 4: Similar to the above scene, delete the file “b.txt”. Stage the change. Try to revert the change.