

# Basic Commands of Git

**Spoken Tutorial Project**

**<http://spoken-tutorial.org>**

**National Mission on Education through ICT**

**<http://sakshat.ac.in>**

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**18 May 2015**



# Learning Objectives

**In this tutorial, we will learn about**



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**In this tutorial, we will learn about**

- ▶ **Git Repository**



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**In this tutorial, we will learn about**

- ▶ **Git Repository**
- ▶ **Some basic commands of Git**



# System Requirements

**For this tutorial, I am using**



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- ▶ **Ubuntu Linux 14.04 OS**



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- ▶ **Git 2.3.2**



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- ▶ **Ubuntu Linux 14.04 OS**
- ▶ **Git 2.3.2**
- ▶ **gedit Text Editor**





# Prerequisites



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- ▶ You should have knowledge of running **Linux** commands on the **Terminal**



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- ▶ You should have knowledge of running **Linux** commands on the **Terminal**
- ▶ If not, for relevant **Linux** tutorials please visit [www.spoken-tutorial.org](http://www.spoken-tutorial.org)



# Git Repository



# Git Repository

- ▶ **Git repository is a folder where all the data of our project will be stored**



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- ▶ **Git repository is a folder where all the data of our project will be stored**
- ▶ **It can be located on the local machine or on a remote machine**



# Git Repository (Continued)

## Difference between normal folder and Git repository



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## Difference between normal folder and Git repository

- ▶ Normal folder contains only files and directories





# Git Repository (Continued)

## Difference between normal folder and Git repository

- ▶ Normal folder contains only files and directories
- ▶ Git repository contains files and directories along with their complete history



# --global flag



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- ▶ Multiple repositories can be created in a single machine



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- ▶ If you use the **--global** flag, the setting will be applied to all the repositories of the machine



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- ▶ Multiple repositories can be created in a single machine
- ▶ If you use the **--global** flag, the setting will be applied to all the repositories of the machine
- ▶ If you want this identity only for this repository, then do not use **--global** flag



# Demonstration

- ▶ I will be using **html** files for demonstration



# Demonstration

- ▶ I will be using **html** files for demonstration
- ▶ You can use any file type of your choice



# Demonstration

- ▶ I will be using **html** files for demonstration
- ▶ You can use any file type of your choice
- ▶ For eg: text files or doc files





# Staging area

- ▶ Staging area is a file that stores information of the changes that need to be committed



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- ▶ **Staging area is a file that stores information of the changes that need to be committed**
- ▶ **The file contents should be added to the staging area, before committing them**



# Staging area

- ▶ Staging area is a file that stores information of the changes that need to be committed
- ▶ The file contents should be added to the staging area, before committing them
- ▶ Older git versions used the term **index** instead of **staging area**



# What is commit?

- ▶ When we attain a particular stage, we can save our work in the repository



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- ▶ This is called **commit**



# What is commit?

- ▶ When we attain a particular stage, we can save our work in the repository
- ▶ This is called **commit**
- ▶ Each commit is saved with the information of username, email-id, date, time and commit message



# SHA-1 hash



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- ▶ It is a unique id of 40 alpha-numeric characters
- ▶ Git stores all the information in its database by the hash value
- ▶ Git commits are identified by the SHA-1 hash



# Summary

- ▶ **Git Repository**
- ▶ **Some basic commands of Git**



# Assignment

- ▶ Create a directory in your machine and make it as a repository
- ▶ Create a text file and add content into it
- ▶ Add the file to the staging area of the Git repository
- ▶ Commit the file and
- ▶ See the commit details using **git log** command



# Acknowledgement

- ▶ Watch the video available at [http://spoken-tutorial.org/What\\_is\\_a\\_Spoken\\_Tutorial](http://spoken-tutorial.org/What_is_a_Spoken_Tutorial)
- ▶ It summarises the Spoken Tutorial project
- ▶ If you do not have good bandwidth, you can download and watch it



# Spoken Tutorial Workshops

## The Spoken Tutorial Project Team

- ▶ Conducts workshops using spoken tutorials
- ▶ Gives certificates to those who pass an online test
- ▶ For more details, please write to [contact@spoken-tutorial.org](mailto:contact@spoken-tutorial.org)



# Acknowledgements

- ▶ Spoken Tutorial Project is a part of the Talk to a Teacher project
- ▶ It is supported by the National Mission on Education through ICT, MHRD, Government of India
- ▶ More information on this Mission is available at:

<http://spoken-tutorial.org/NMEICT-Intro>

