



Module Presenter's Manual

for

Distributed Version Control

Effective from: December 2021

Ver. 1.0

Amendment Record

Version No.	Effective Date	Change	Replaced Pages
1.0	December 2021	New	-

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1. Introduction

At the end of this course, students will be able to:

- Outline necessity for Version Control.
- Outline an Overview of Git.
- Describe basics of Git.
- List Git terminology.
- Describe how to make a new Git repository.
- Describe how to make a clone of an existing Git repository.
- Define configuration of Git.
- Outline staging and committing changes.
- Identify how to create a new branch.
- Outline steps to develop code on multiple branches.
- Outline steps to modify a branch.
- Identify how to merge and delete branches.
- Describe how to create a remote branch.
- Describe how to pull from remote connection.
- Explain GitHub.
- Differentiate between Git and GitHub.
- Describe how to create a GitHub repository.
- Describe Branching, Committing, and Pulling in GitHub.
- Describe forking and other operations with GitHub.
- Identify the process to clone a repository.
- Explain GitHub Pages.
- Describe different types of GitHub Pages Sites.
- List the guidelines for using GitHub Pages.

2. Information on Session Allocation

Module	Online (No. of Hrs)	Self-Study (No. of Hrs)
Distributed Version Control	12	06

Throughout this Presenter's Manual, the module **Distributed Version Control** will be referred to as **Git & GitHub**.










3. Module Deliverables available on OnlineVarsity

To aid the learning process, following are the deliverables

Student Deliverables:

1. Learner's Guide (eBook)

Resources available on OnlineVarsity for Students:

Icons	Feature - Description/Functionality
	Download Book - Student has the option to download the subject related e-book and read offline.
	Glossary - Student can access a list of subject related specialized words with their definitions.
	FAQ - Student can access frequently asked questions and their answers.
	Show Me How - Student can view a step-wise simulation/demonstration of the module related topics.
	Practice 4 Me - Student can test and evaluate their understanding of module related topics.
	Work Assignments - Student can solve scenario based lab assignments (Hands-on). The faculty will evaluate and give their feedbacks.
	References - Student can access additional subject related material for reading.
	Feedback - Student can provide feedback on the course material.
	Ask to Learn – Student can submit subject related technical queries. Queries submitted will be directed to the particular course coordinator/head.

4. Week-wise Session Schedule

- A Session is of 2 hours duration

➤ **Week-Wise Schedule**

Week	Day 1		Day 2		Day 3	
1	Session 1 Git & GitHub – TL1		Session 2 Git & GitHub – TL2	S1	Session 3 Git & GitHub – TL3	
2	Session 4 Git & GitHub – TL4	S2	Session 5 Git & GitHub – TL5		Session 6 Git & GitHub – TL6	S3

TL: Online Session

S: Self-Study Session (over and above the module duration)

5. Session Coverage

Session No.	Session Title	Session Details	Deliverables' Mapping
1	Git & GitHub – TL1	<p>All the concept lessons as listed below from Session 1 and Session 2 of <i>Version Control with Git and GitHub</i> book should be covered in this session.</p> <p><u>Session 1 – Getting Started with Git</u></p> <ul style="list-style-type: none"> ➤ Necessity for Version Control ➤ Introduction to Git ➤ Git Basics ➤ Command-Line Program ➤ Setting Up Git <p><u>Session 2 – Working with Git</u></p> <ul style="list-style-type: none"> ➤ Getting a Git Repository ➤ Setting Up the Project Folder ➤ Git Configuration ➤ Levels of Configuration ➤ Git Clone ➤ Staging Files ➤ Commit Files 	<p><u>Version Control with Git and GitHub</u></p> <p>SG - Session 1 & 2 XP - Session 1 & 2 TG - Session 1 & 2</p>
2	Git & GitHub – TL2	<p>The workshop lessons of Session 1 and Session 2 of <i>Version Control with Git and GitHub</i> course should be covered in this session.</p>	<p><u>Version Control with Git and GitHub</u></p> <p><u>(OnlineVarsity)</u></p> <p>Session 1 & 2</p>
	S1	<p>After the session, ask the students to refer the References and solve Assignments of Session 1 and Session 2 available on Onlinevarsity.</p>	<p><u>Version Control with Git and GitHub</u></p> <p><u>(OnlineVarsity)</u></p> <p>Session 1 & 2</p>

Session No.	Session Title	Session Details	Deliverables' Mapping
3	Git & GitHub – TL3	<p>All the concept lessons as listed below from Session 3 and Session 4 of <i>Version Control with Git and GitHub</i> book should be covered in this session.</p> <p><u>Session 3 – Git Branching</u></p> <ul style="list-style-type: none"> ➤ Basic Branching and Merging ➤ Creating a New Branch ➤ Delete, Rename, and Merge two Branches ➤ Basic Merging to Master Branch <p><u>Session 4 – Different Approaches to Git</u></p> <ul style="list-style-type: none"> ➤ Remote Branches in Git ➤ Pulling in Git 	<p><u>Version Control with Git and GitHub</u></p> <p>SG - Session 3 & 4 XP - Session 3 & 4 TG - Session 3 & 4</p>
4	Git & GitHub – TL4	<p>The workshop lessons of Session 3 and Session 4 of <i>Version Control with Git and GitHub</i> course should be covered in this session.</p>	<p><u>Version Control with Git and GitHub</u></p> <p><u>(OnlineVarsity)</u></p> <p>Session 3 & 4</p>
	S2	<p>After the session, ask the students to refer the References and solve Assignments of Session 3 and Session 4 available on OnlineVarsity.</p>	<p><u>Version Control with Git and GitHub</u></p> <p><u>(OnlineVarsity)</u></p> <p>Session 3 & 4</p>
5	Git & GitHub – TL5	<p>All the topics as listed below from Session 5 and Session 6 of <i>Version Control with Git and GitHub</i> book should be covered in this session.</p> <p><u>Session 5 – GitHub as a Project Repository</u></p> <ul style="list-style-type: none"> ➤ Introduction to GitHub ➤ GitHub Web Interface ➤ Differences between Git and GitHub ➤ Installing GitHub Desktop 	<p><u>Version Control with Git and GitHub</u></p> <p>SG - Session 5 & 6 XP - Session 5 & 6 TG - Session 5 & 6</p>

Session No.	Session Title	Session Details	Deliverables' Mapping
		<ul style="list-style-type: none"> ➤ Creating a Repository in GitHub ➤ Branching in GitHub ➤ Viewing Branches ➤ Deleting Branches ➤ Other Operations ➤ Committing in GitHub <p><u>Session 6 – More on GitHub and Overview of GitHub Pages</u></p> <ul style="list-style-type: none"> ➤ GitHub Pricing Plans ➤ Forking and Other Operations in GitHub ➤ Cloning a Repository ➤ Introduction to GitHub Pages ➤ Types of GitHub Pages Sites ➤ Guidelines for using GitHub Pages 	
6	Git & GitHub – TL6	The workshop lessons of Session 5 and Session 6 of <i>Version Control with Git and GitHub</i> course should be covered in this session.	<p><u>Version Control with Git and GitHub</u></p> <p><u>(OnlineVarsity)</u></p> <p>Session 5 & 6</p>
	S3	After the session, ask the students to refer the References and solve Assignments of Session 5 & Session 6 available on Onlinevarsity.	<p><u>Version Control with Git and GitHub</u></p> <p><u>(OnlineVarsity)</u></p> <p>Session 5 & 6</p>

6. Library References

➤	Git by Ryan Hodson
➤	The Ultimate Beginners Guide Git by Adney Ainley
➤	Building Tools with GitHub by Rosemie Callewaert and Johan Revilla
➤	Version Control with Git by Jon Loeliger, Matthew McCullough

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