



# United International University

Department of CSE  
CSE 322: Software Engineering Laboratory  
Lab Sheet

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## Experiment No. 2

Version controlling using Git and GitHub

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### 1. Introduction

Version control, also known as source control, is the practice of tracking and managing changes to software code. Version control systems are software tools that help software teams manage changes to source code over time. Git is a program that keeps track of the changes in your project. It makes sure that the changes are saved in your computer (local). GitHub is a provider of Internet hosting for software development and version control using Git.

### 2. Lab Equipment/Required Software

- Git (<https://git-scm.com/downloads>)
- GitHub Desktop [Optional] (<https://desktop.github.com/>)

### 3. Objective

- Keep track of changes in a project using Git.
- Rollback to a previous state of the project if a problem occurs using Git.
- Push the changes to server so that everyone can see it using Github.

### 4. Workflow

- Download Git if required (Section – 2a).
- Practice common Git commands related to-
  - Initialization
  - Tracking changes
  - Branching
  - Creating Remote Repository
  - Syncing Remote Branches

### 5. Hand's on Practice

- Clone the remote repository in your computer.
- Add a new functionality in the local repo.
- Sync your changes with the remote branch and push it.

### 6. Homework

Use the commands you have learned in this class in your project.