

## BitBucket Setup – COSC 4345 Software Engineering II

BitBucket.org with GIT is a version control system that makes it easy for teams to work collaboratively on software projects. Version control (also known as revision control or source control) is a system for managing changes to software. Changes are identified by a letter or number termed a “revision number”.

Bitbucket is a free web-based hosting service owned by Atlassian.

<http://www.bitbucket.org>

- 1) All team members should create an account on the Bitbucket website.
- 2) One team member should create a Bitbucket team. A Bitbucket team allows several team members to collaborate on a single software project. There are six teams for the course. Since the project scenario is for a company called “Widget Computers” the teams should be named widgetTeam1, widgetTeam2, widgetTeam3, etc.
- 3) Add team members to the team.
  - a. Go to team -> members -> Manage Team (top right of screen) and add team members. Make all team members administrators.
- 4) When you create files for your project you will want to keep them in one place and make them shareable with your teammates. The team member that created the team should create a repository. The repository name should correspond to the team name. For example, team1Repro, team2Repro, team3Repro.
- 5) Next, all team members will need a version of GIT installed locally on their personal computers.  
<https://git-scm.com/downloads>
- 6) Each team member should create a directory for all source code. For example, on a PC create a directory c:\repro. On a Mac create the directory /Users/<YourUserName>/repro
- 7) Inside the repro directory you should create directories for the different file types. For example, python, java, php. All of the project source files can be organized under those directories and each team member should have the exact same directory structure.
- 8) Create an empty GIT repository on your local machine. Go to a terminal session.
  - a. `cd /path/to/my/codebase`
  - b. `git init`
- 9) Connect your existing local repository to your repository in Bitbucket. Go to a terminal session.
  - a. `cd /path/to/my/codebase`
  - b. <https://<adminUser>@bitbucket.org/widgetTeam1/team1Repro.git>
- 10) Now the team should be able to create and add new files. After creating or updating a file locally using your favorite editor, you can push it to the repository and update Bitbucket. Open a terminal session and change directories to your codebase.
  - a. `git add .`

- b. `git commit -message "Note to describe this commit"`
  - c. `git push`
- 11) Any time you begin to edit files, you should pull the latest updates from BitBucket.
  - a. `git pull --commit`