Code Version Control with GITHUB and BITBUCKET

https://github.com/
https://bitbucket.org/

This tutorial will guide you to upload your project to github or bitbucket, and next to download your project to the production server

Step 0: Install git software package

First you have to install the git software package on your PC/laptop

- Linux Debian/Ubuntu/Mint: `apt-get install git`
- Windows: get the software http://intranet.deei.fct.ualg.pt/software/clients/Git-2.10.0-32-bit.exe

Step 1: Create an account

First you have to open an account with github or bitbucket and create a repository: call it "library"

Step 2: Create a local snapshot of your project

Now we come to some steps that are necessary each time you create a new *repository* (sometimes called a *repo* for short). First navigate to the root directory of the first app and initialize a new repository:

```
$ cd ~/public_html/library
$ git init
```

The next step is to add all the project files to the repository using **git add -A**:

```
$ git add -A
```

This command adds all the files in the current directory apart from those that match the patterns in a special file called **.gitignore**. The **rails new** command automatically generates a **.gitignore** file appropriate to a Rails project, but you can add additional patterns as well

To tell Git you want to keep the changes, use the **commit** command:

```
$ git commit -m "Initialize repository"
```

Step 3: Upload your project

Now define which repository you are going to use to upload your project.

 If you are using github:

```
$ git remote add origin https://github.com/jsilva/library.git
$ git push -u origin --all # pushes up the repo and its refs for the first time
```

If you are using bitbucket:

```
$ git remote add origin https://bitbucket.org/jsilva/library.git
```

NOTE: Use only one repository at a time. Change "jsilva" for your personal login in github or bitbucket:

```
Username for 'https://github.com': jsilva
Password for 'https://jsilva@github.com':
```

That's it! Your project has been uploaded to github (or bitbucket).

Step 4: (optional) working in a project branch

```
$ git checkout -b project_branch_name
```

Do your coding; when you are done merge with the master branch and upload again

```
$ git add -A
$ git commit -m "some info text about code changes"
$ git checkout master
$ git merge project_branch_name
$ git push
```

(Repeat this step as often as you wish, during the development of your project)

Step 5: Download your project to the production server

Login to the production server and go to the web directory (in this example it is public_html)

`$ cd ~/public_html`

Now download a copy of your project to a new directory called "library"

```
git clone git://github.com/jsilva/library.git library
```

Step 5: Version control

To learn more about version control follow the tutorials at

- **https://github.com/**
- **https://bitbucket.org/**