**Assignment 1**

**Attempt all questions, each question carries 5 marks, there is no negative marking.  
Upload your answer file with your name in repository “/Assignment1” location.**

Q.1)How user can push files on GitHub?

Ans. The git push command is used to transfer or push the commit, which is made on a local branch in your computer to a remote repository like GitHub.

1. On your computer, move the file you'd like to upload to GitHub into the local directory that was created when you cloned the repository.
2. Open Git Bash.
3. Change the current working directory to your local repository.
4. Stage the file for commit to your local repository.
5. Commit the file that you've staged in your local repository.
6. Push the changes in your local repository to GitHub

Q.2) Which command are used to check GIT Version?

Ans.You can check your current version of Git by running the git --version command in a terminal (Linux, Mac OS X) or command prompt (Windows). The versions of Git supported by Crucible.

git --version

C:\Users\sushi\Desktop\Django>git --version

git version 2.30.1.windows.1

If you don't see a supported version of Git, you'll need to either upgrade Git or perform a fresh install.

Q.3) How you can collaborate with others in github?

### Ans.

### TWO COMMON COLLABORATIVE WORK FLOWS

**SHARED REPOSITORY MODEL**

* For small projects where you are basically in the same physical space (e.g., lab with offices near each other).
* Be careful! You are cloning the main repository.
* Everyone has push and pull access to the central repo, so be careful and:
  + Never commit to the master directly.
  + Always do your work on a different branch from master.

**BASIC SHARED REPOSITORY WORKFLOW**

* update your local repo with git pull origin master,
* create a working branch with git checkout -b MyNewBranch
* make your changes on your branch and stage them with git add,
* commit your changes locally with git commit -m "description of your commit", and
* upload the changes (including your new branch) to GitHub with git push origin MyNewBranch
* Go to the main repo on GitHub where you should now see your new branch
* click on your branch name
* click on “Pull Request” button (URC)
* click on “Send Pull Request”

**FORK AND PULL MODEL**

* This is the model used by U of T Coders on its own website and repos.
* The “owner”/”Project Leader” of the upstream repo assigns rights to “Collaborators”
* Collaborators do not have push access to main (upstream) repo
* Project Lead accepts Pull Requests (PRs) fro collaborators, reviews them, then merges them into main repo.

Q.4) How you can push updates on your repository?

Ans.

While pushing updates on the repository use following commands:

**Step 1:** Go to the location of working directory where we have to add or update the files in the local repository on your system. Then use following command.

**git add .**

**Step 2:**then, make a local commit by.

**git commit -m "your commit message"**

**Step 3:**once you make your local commit, you can then push it to your remote GitHub fork.

**git push origin master**

But if you want to pull your changes from the forked repository in github

To make your source code pulled by original fork, you have to send a pull request to the project owner.

1. Go to the web page of your forked project on GitHub.
2. Hit the pull request button on the top right of page
3. Select the commits that you want to submit by change commits button.
4. Write some description of your changes, comments, or etc.
5. Send pull request and wait for the owner reply.

Q.5) What is alternative of github & what is Full form of GIT?

Ans.

GitLab :

[Gitlab](https://about.gitlab.com/) is an open source, powerful, secure, efficient, feature-rich and robust application for handling software development and operations (DevOps) lifecycle. This is possibly the number one alternative for **Github**, as it supports group milestones, issue tracker, configurable issue boards and group issues, moving of issues between projects, and more.

Bitbucket

[Bitbucket](https://bitbucket.org/) is a powerful, fully scalable and high-performance development platform designed for professional teams. Education users and open source projects get free Bitbucket accounts, and many other features. You can easily import your GitHub repositories to Bitbucket in 6 simple steps, and supports third-party integrations.

Benstalk

[Beanstalk](https://beanstalkapp.com/) is a powerful, secure, high-performance and reliable platform for managing source code repositories. Beanstalk designed to improve your development workflow using features such as code review, issue tracker, repository statistics, release notes, notifications, email digests, compare view, and a full history of commits and files, and so much more.

Launchpad

[Launchpad](https://launchpad.net/) is a fully free, well known platform for building, managing and collaborating on software projects, built by **Canonical**, the makers of Ubuntu Linux. It has features such as code hosting, Ubuntu package building and hosting bug tracking, code reviews, mail listing, and specification tracking. Furthermore, Launchpad supports translations, answer tracking

Sourceforge

Sourceforge is a free open source software development and distribution platform built to specifically uplift open source projects. It is hosted on Apache Allura, and supports any number of individual projects.