**Assignment 1**

**Task 1- Once the code is pushed, pipeline runs automatically.(Report)**

In the pipeline configuration we navigate to build triggers.

Then, we have to choose one of two options:

1- Poll SCM:

Note that this is going to be an expensive operation for CVS, as every polling

requires Jenkins to scan the entire workspace and verify it with the server.

This method can trigger the pipeline by 2 ways:

A- By receiving triggers from a post-commit hook (if configured).

B- by specifying a cron schedule to trigger the SCM Polling cycle.

Then if there is a change, the pipeline is triggered.

You can use <https://crontab.guru/> site to choose the proper timing for

your usecase.

2- GitHub hook trigger for GITScm polling:

When Jenkins receives a GitHub push hook, GitHub Plugin checks to see whether the hook came from a GitHub repository which matches the Git repository defined in SCM/Git section of this job. If they match and this option is enabled, GitHub Plugin triggers a one-time polling on GITScm. When GITScm polls GitHub, it finds that there is a change and initiates a build.

Again in pipeline configuration, we navigate to pipeline:

We choose: pipeline script from SCM in the definition option.

Then, we insert Repository URL, credentials, Branches to build, and Jenkins script file path.

Then we click save.

Here is a full guide to implement webhooks without a public IP:

<https://webhookrelay.com/blog/2017/11/23/github-jenkins-guide/>