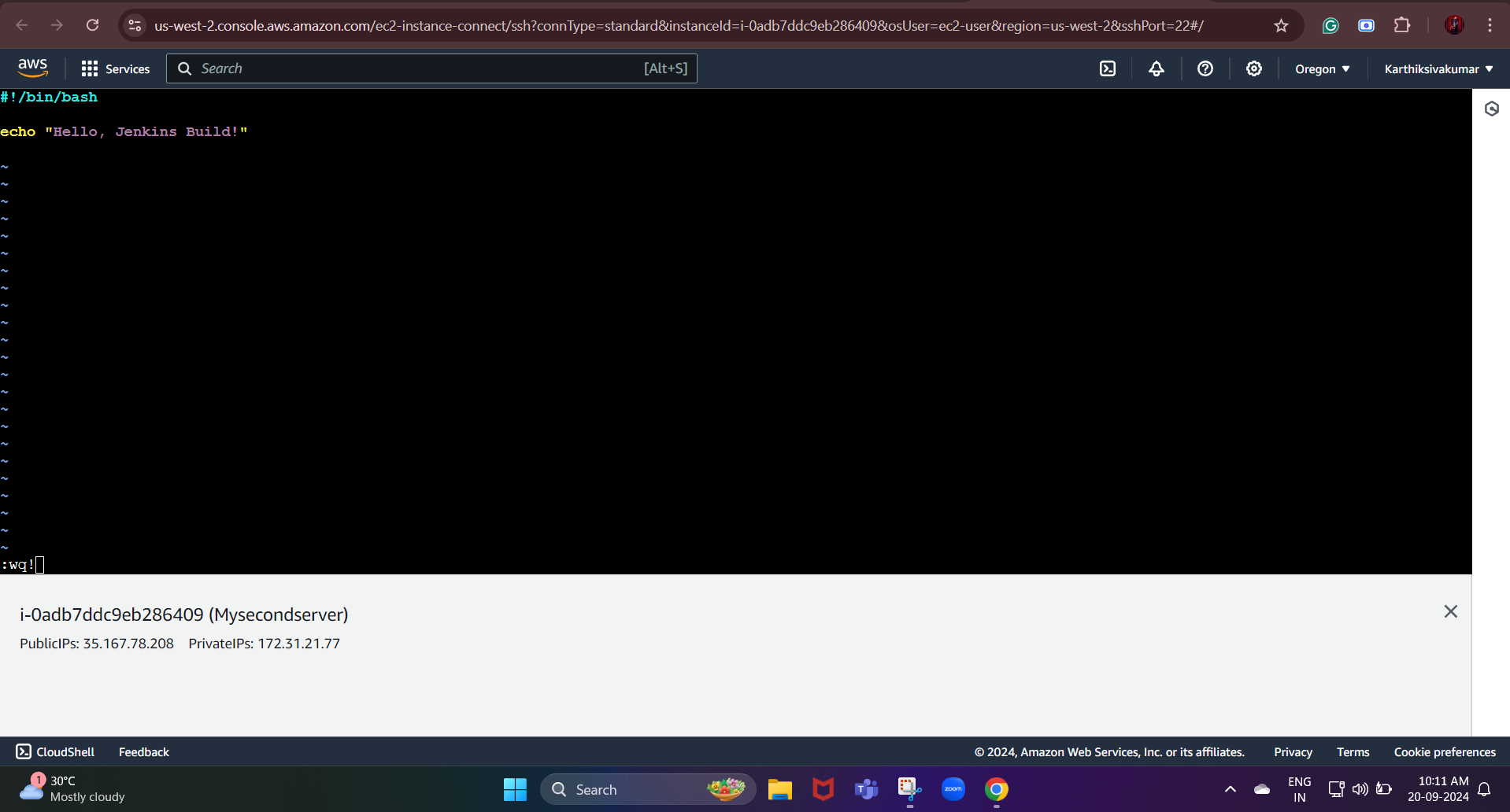
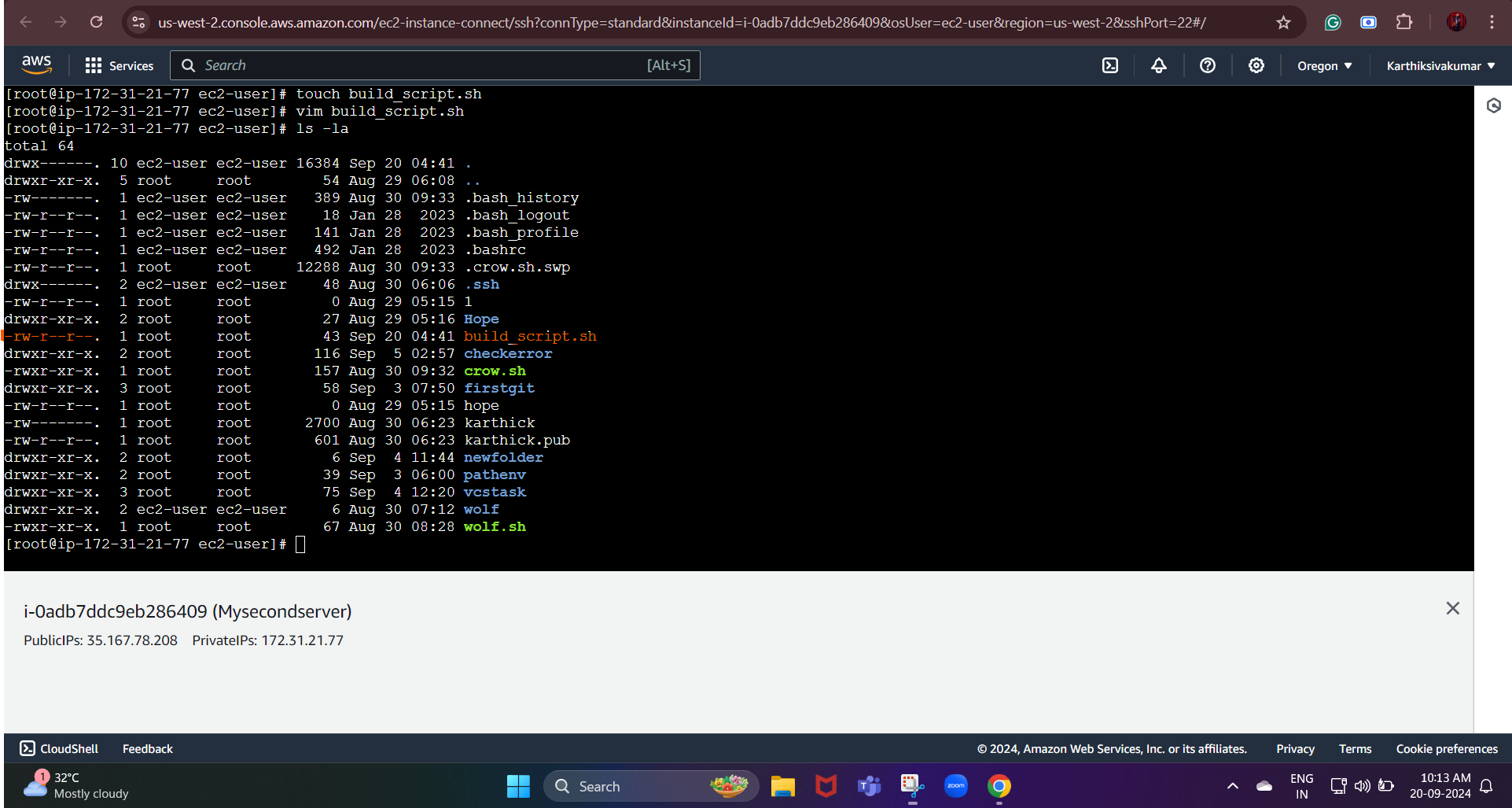
Create a simple script file and push it to repo. Create a project in Jenkins connected to your GitHub repository. When a commit is made to your repo, automatically build must get triggered from Jenkins and the output must be shared to me via email.

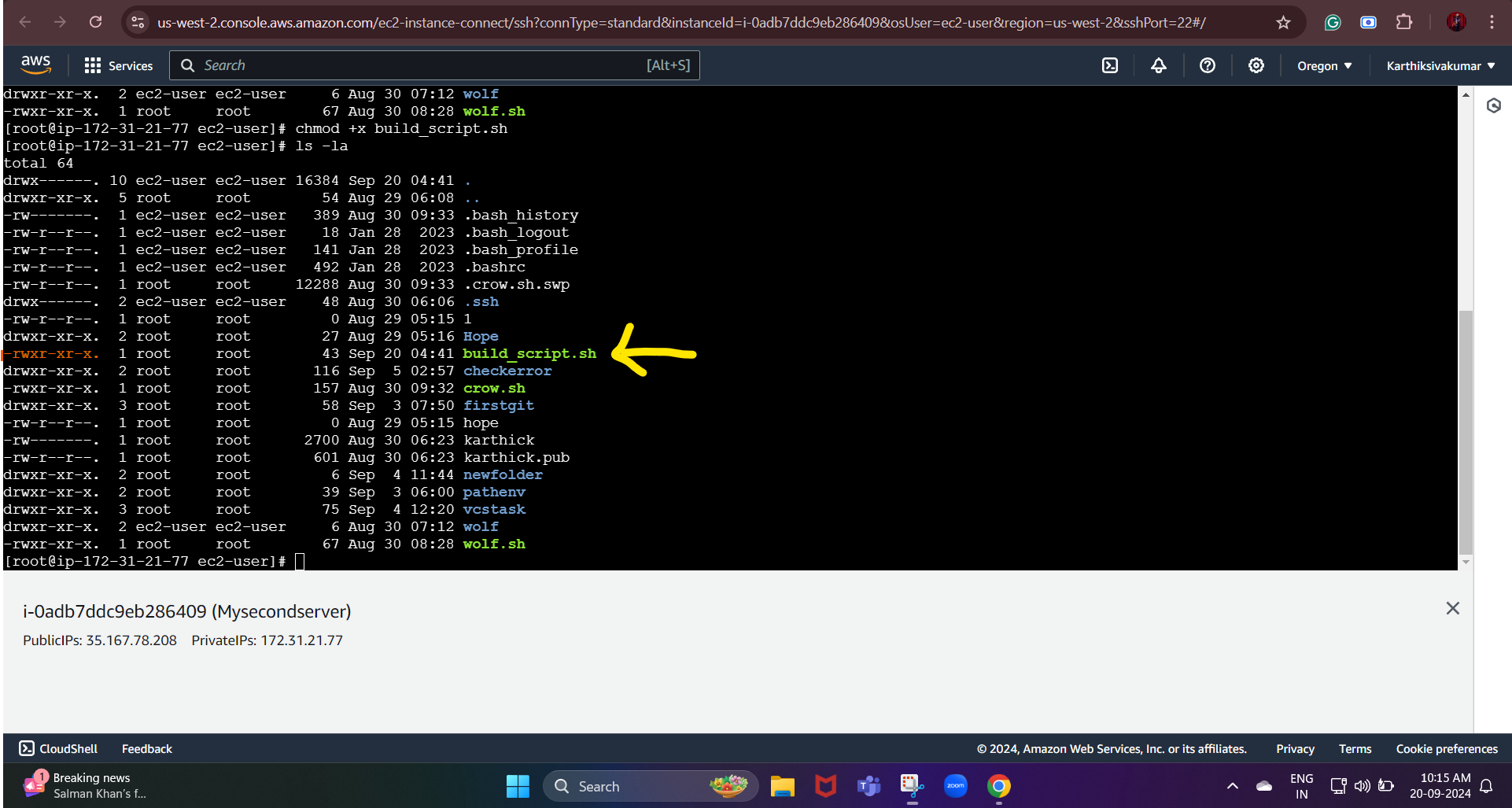
**First, we need to create a simple script file:**

****

**Next, we need to make that file executable:**

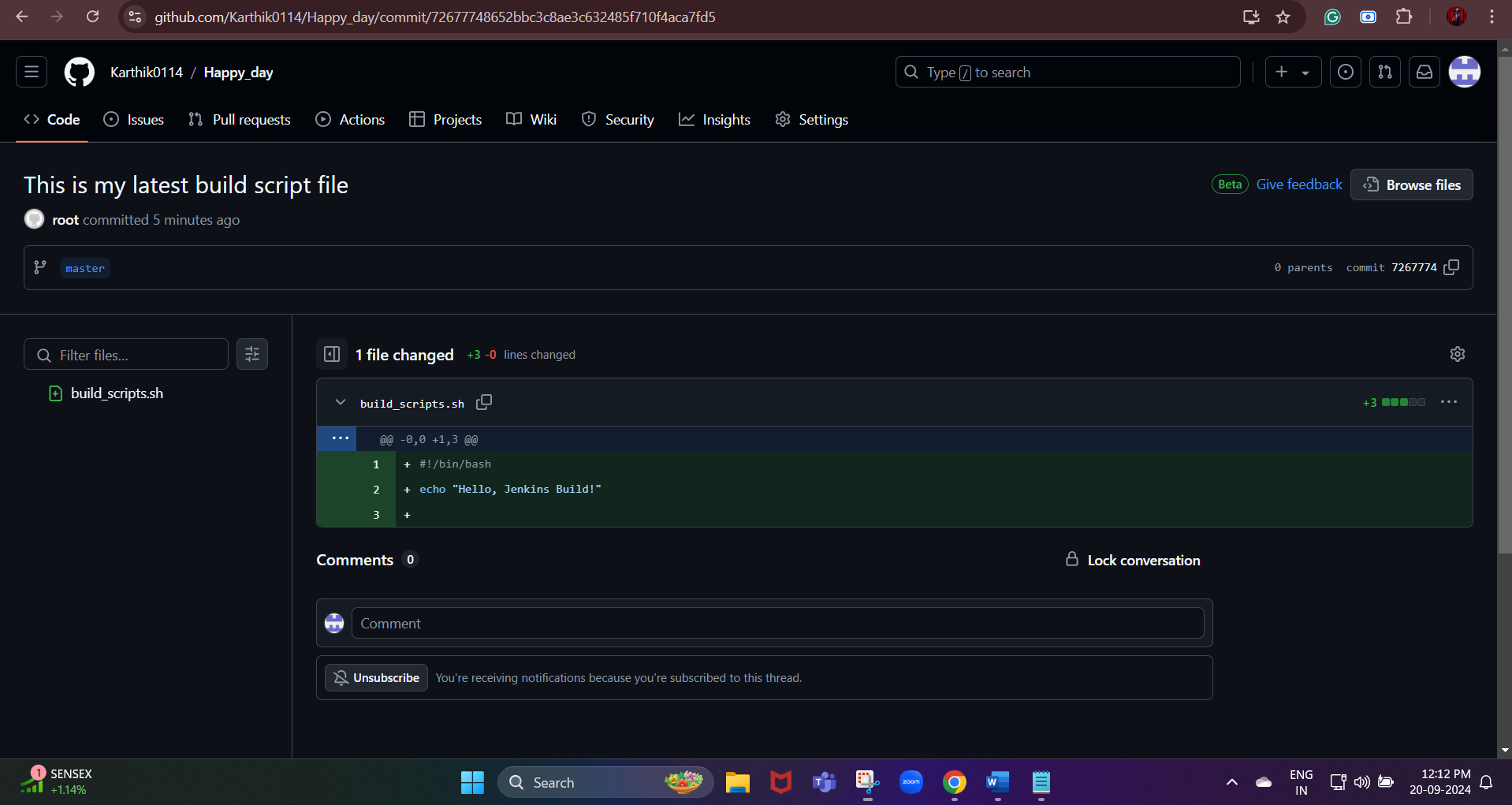
****

**Command : chmod +x build\_script.sh**

****

**Making a script executable is necessary because it tells the operating system that the file can be run as a program. Without the executable permission, the file is just treated as a regular text file, and the system won't allow you to directly run it from the command line or other automated processes like Jenkins.**

**Now, we need to push a script to the git repository:**

****

**Commands Used:**

* git init
* Git status - to see if the file is tracked or untracked
* git add build\_script.sh
* git commit -m "This is my build script file"
* git remote add origin <https://github.com/Karthik0114/Jenkins_task-build.git>

fatal: Authentication failed for '<https://github.com/Karthik0114/Jenkins_task-build.git/>' if we get this error we need to create the token before pushing the file to github.

git remote set-url origin <https://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@github.com/Karthik0114/Jenkins_task-build.git>

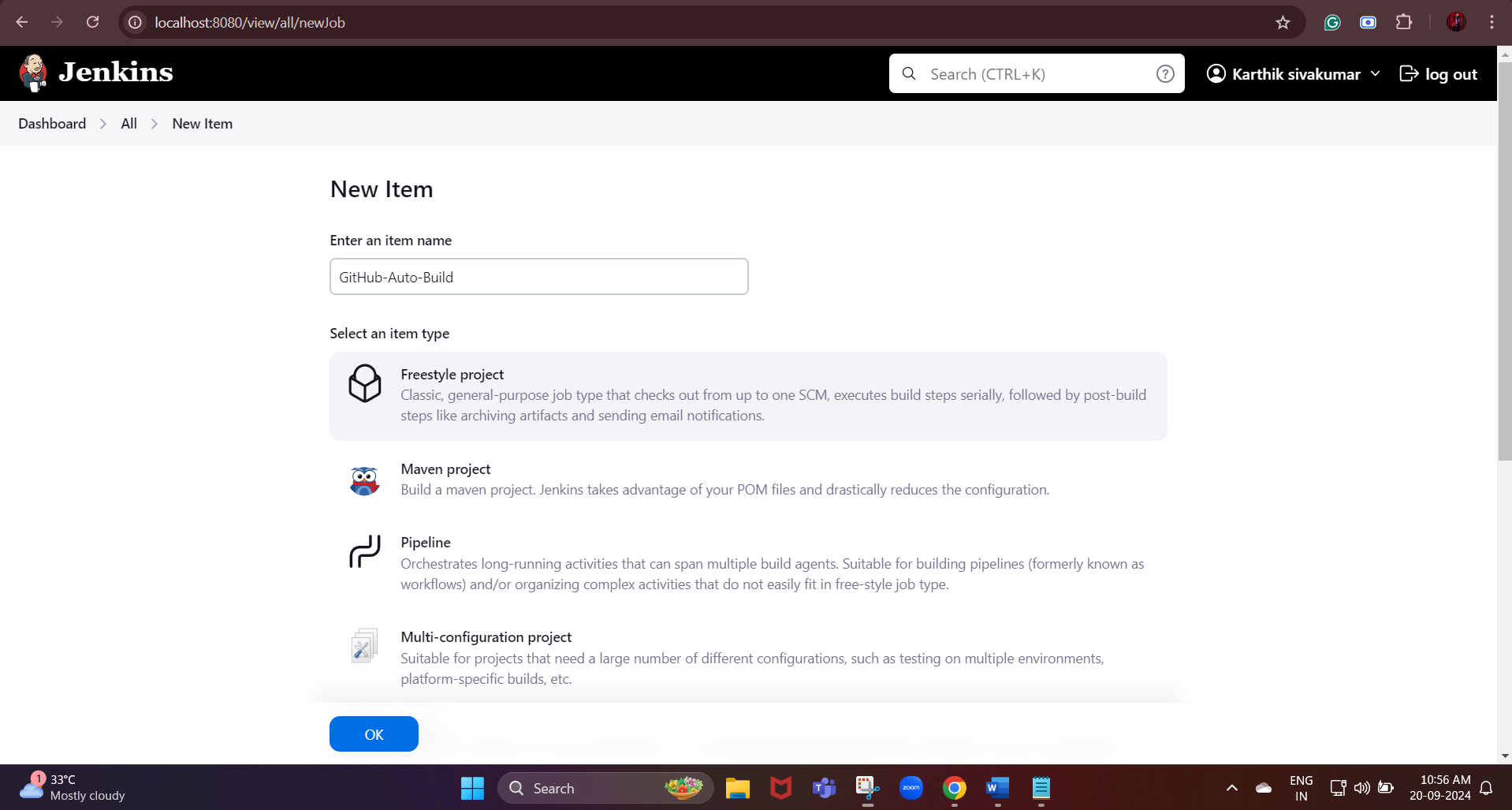
* git push -u origin master

**Setting up the Jenkins project:**

First, we need to install the plugins in the Jenkins to continue our project

**GitHub Plugin**: To connect Jenkins with GitHub.

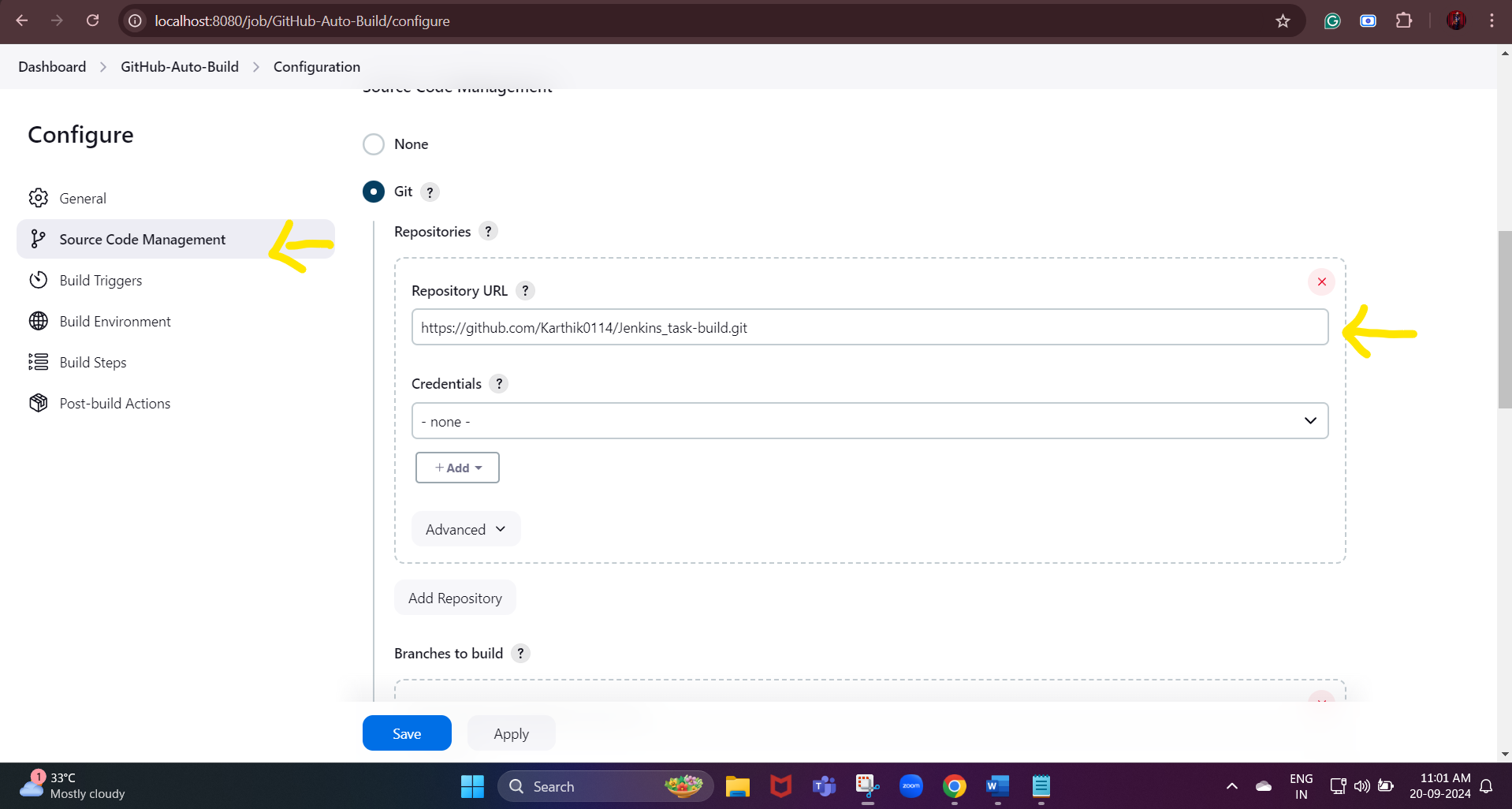
**Email Extension Plugin**: For email notifications.



Here we set our freestyle project in Jenkins

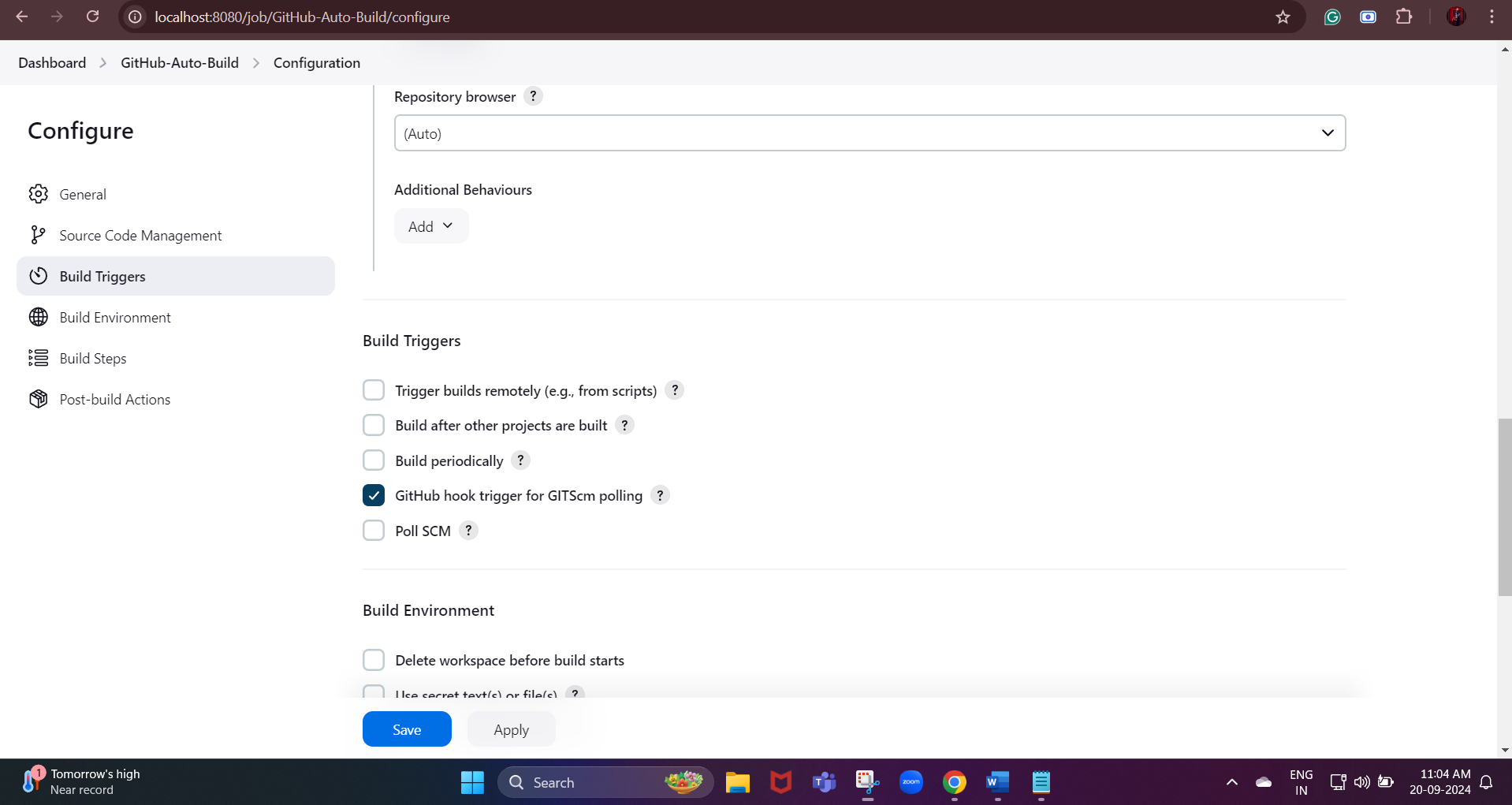
**Setting up the GitHub repository integration:**

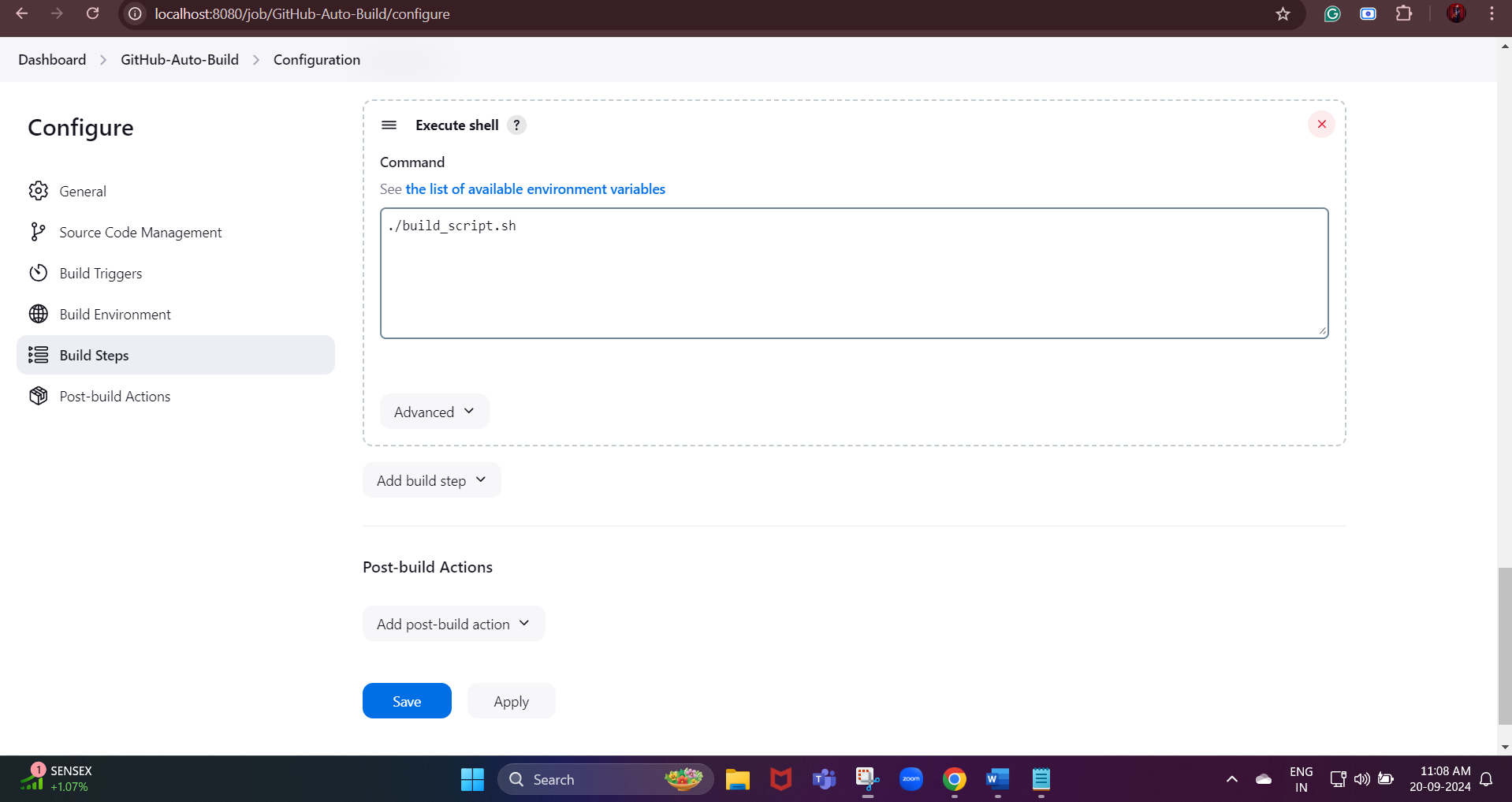
* In the project settings, under Source Code Management, choose Git.
* Provide the URL of your GitHub repository



Under the Build Triggers section, check the option GitHub hook trigger for GITScm polling.

This will enable Jenkins to automatically trigger a build whenever there’s a new commit in the repository.





**Add a build step**:

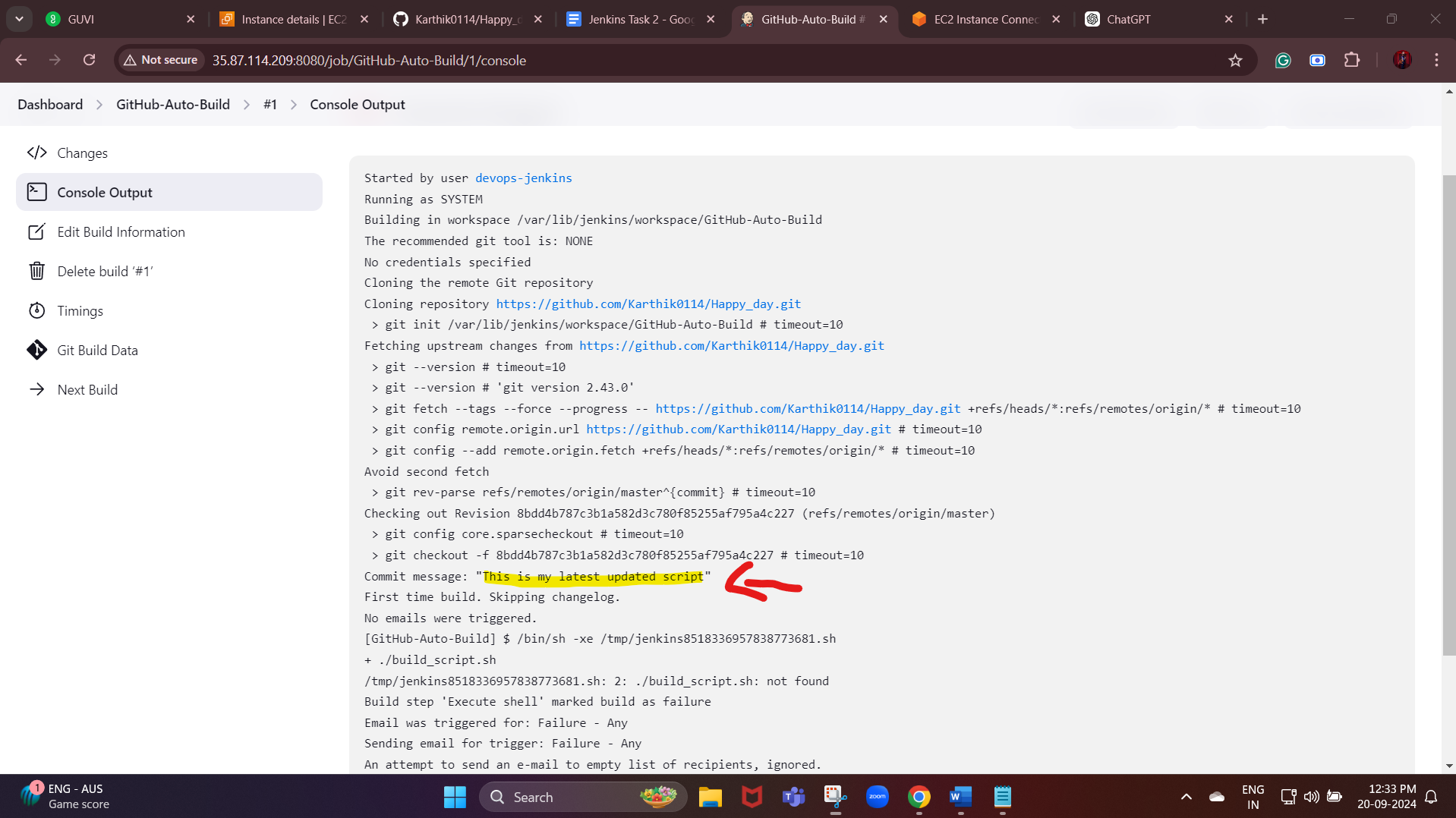
* In Build —---- Add build step—------- select Execute shell.
* Add the following script to run the build script ./build\_script.sh

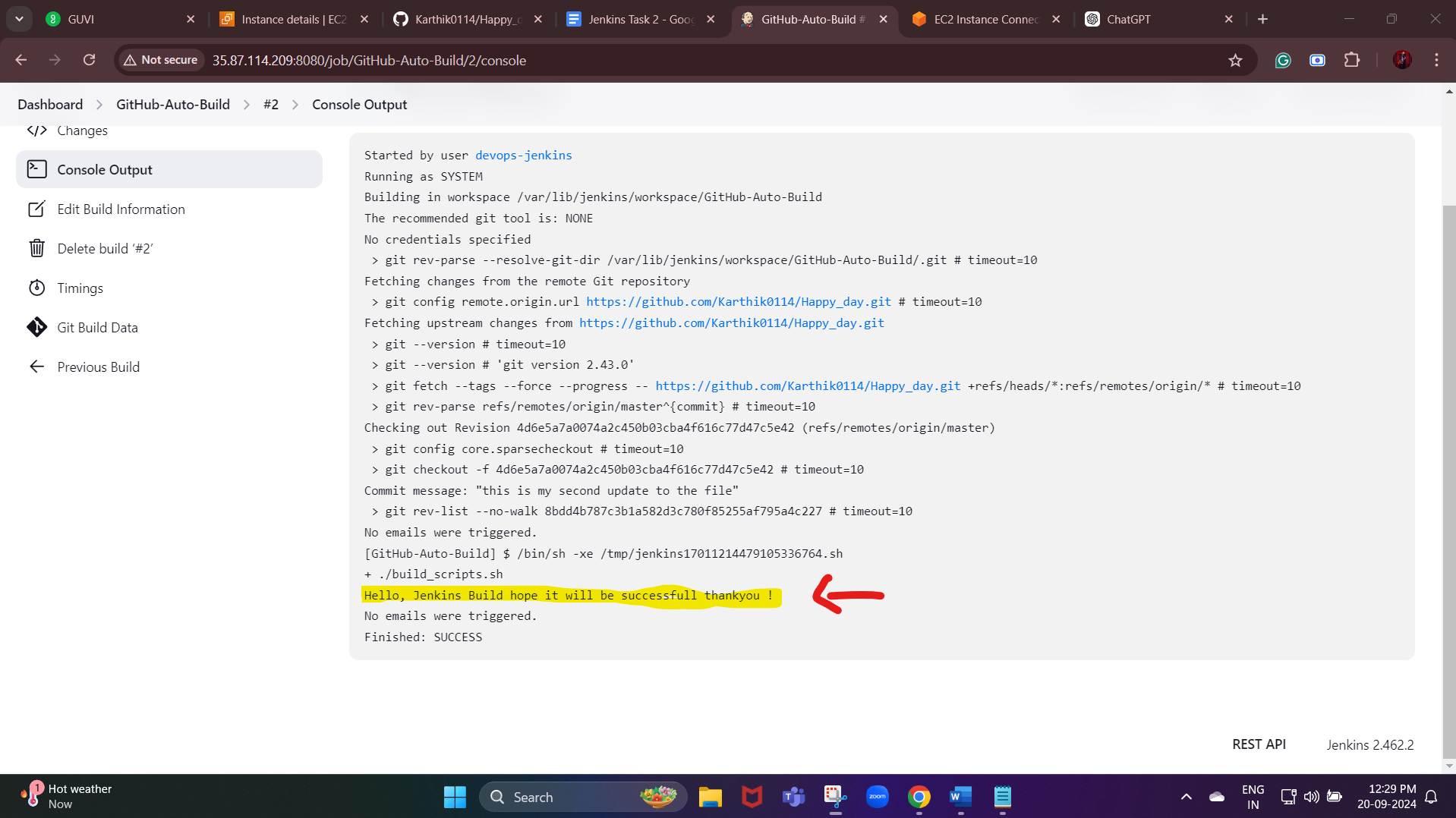
Jenkins is used for Continuous Integration (CI) and Continuous Deployment (CD), where automation is key. By specifying build steps, we are automating the tasks that would otherwise be done manually, ensuring consistency and speed.

Jenkins needs to know how to build our project or run our scripts. A build step can include tasks like compiling code, running tests, executing scripts, or even deploying code to a server.

Make a small change to your script or repository, and commit it to trigger the build

Previous build:



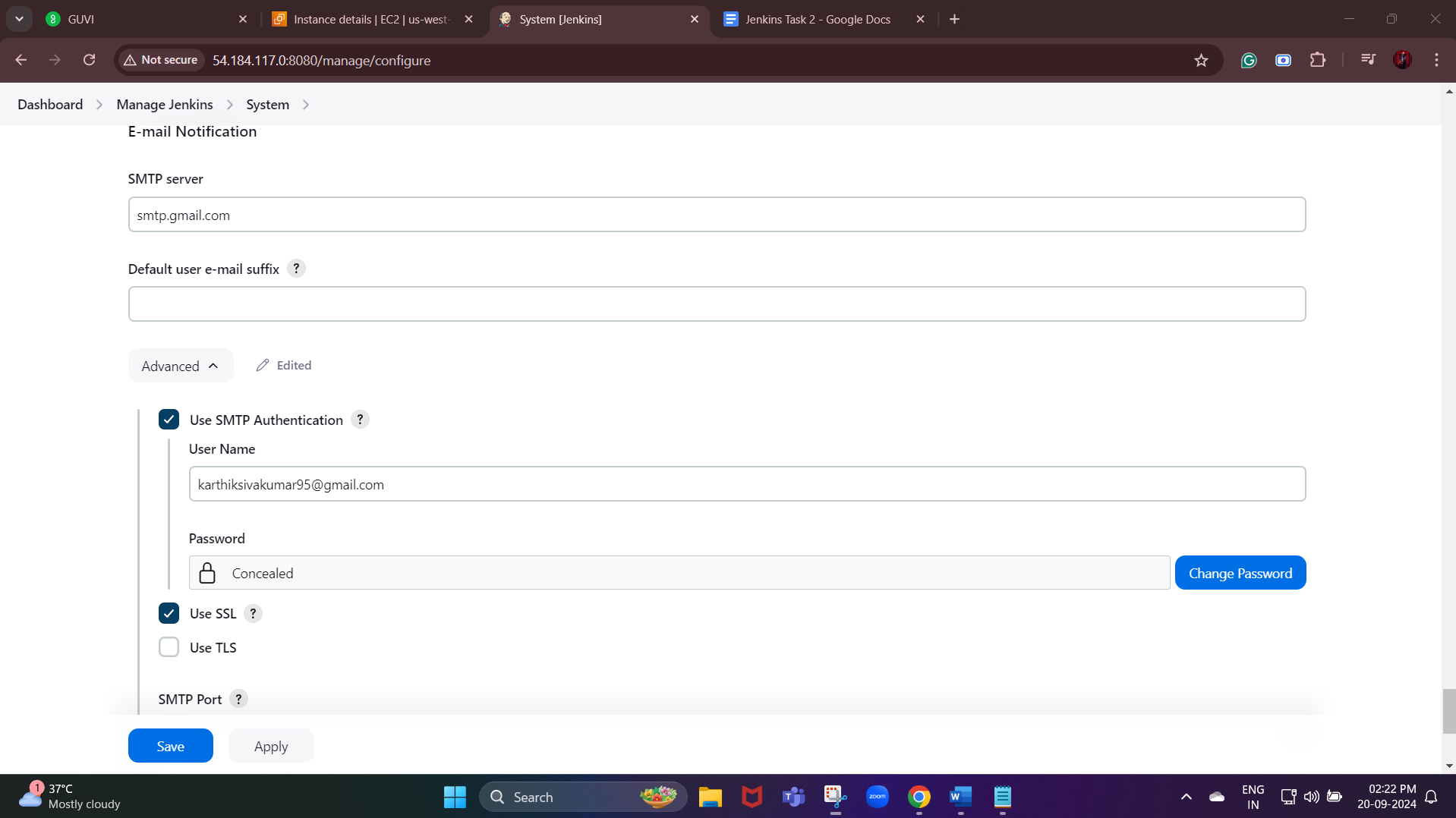


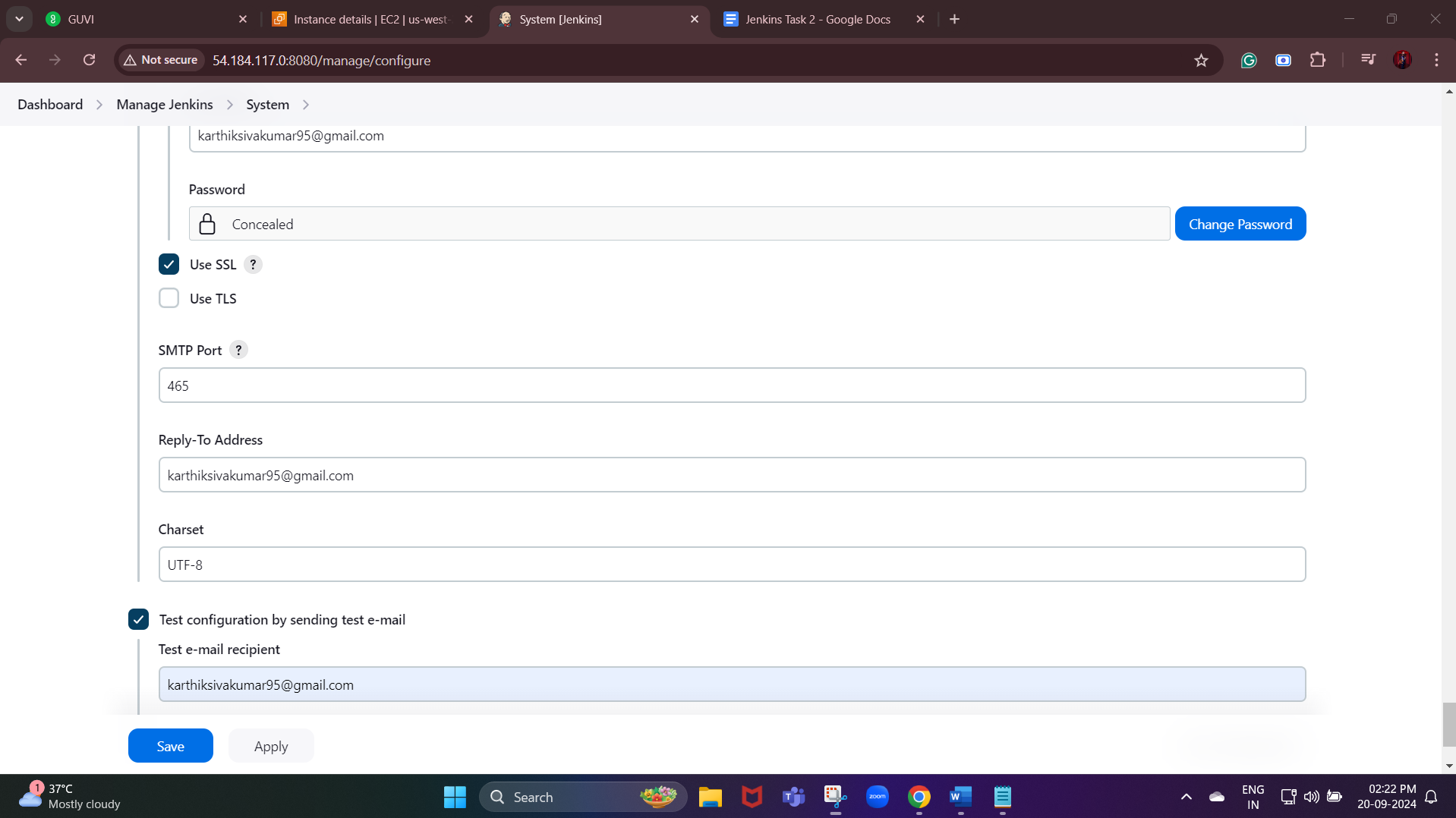
Email notification setup:

* First, we need to manage Jenkins
* In that, we need to select the option system
* Now, we need to do SMPT authentication

First, scroll down and go to the email notification

We need to give the necessary details in that

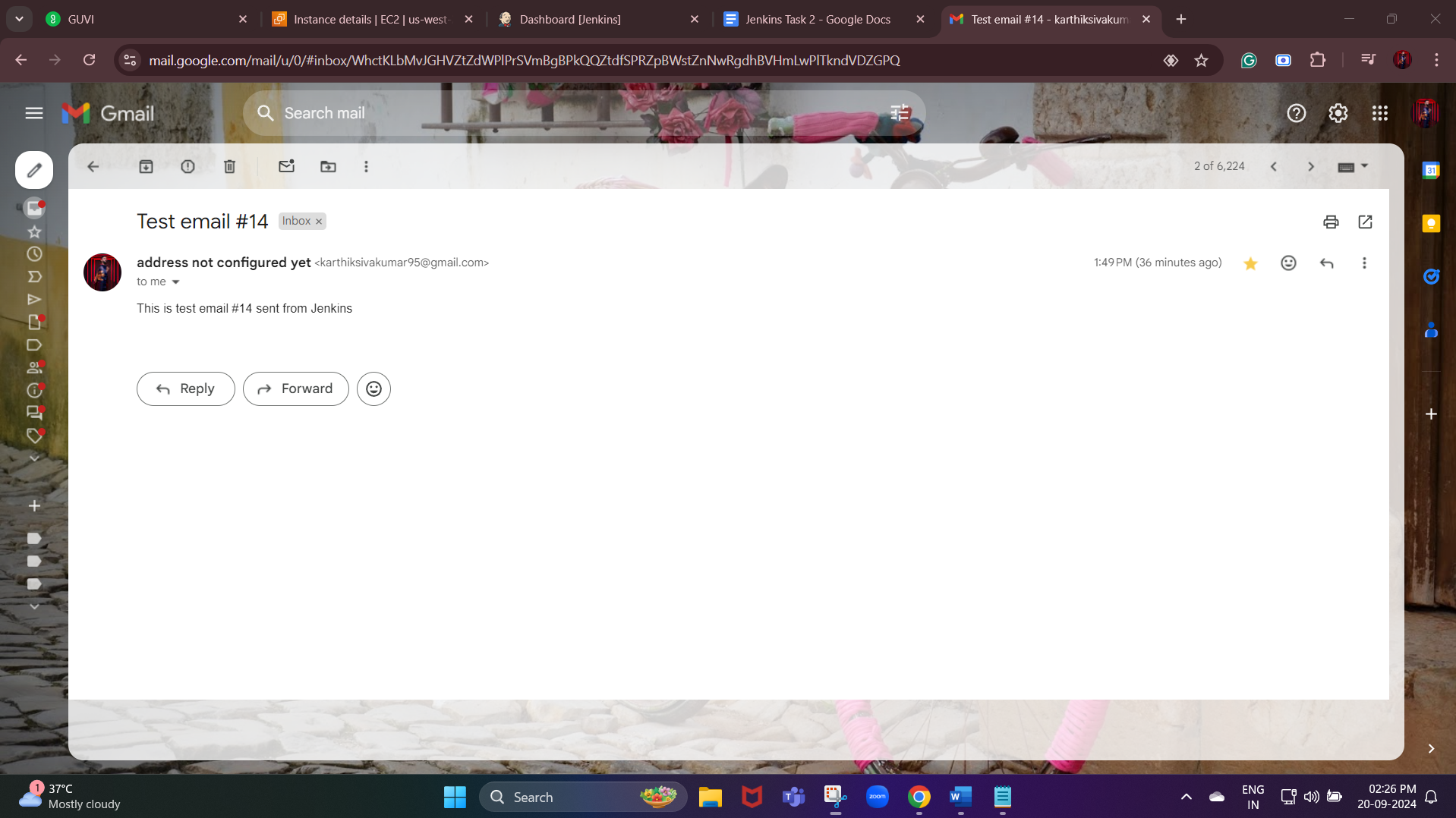




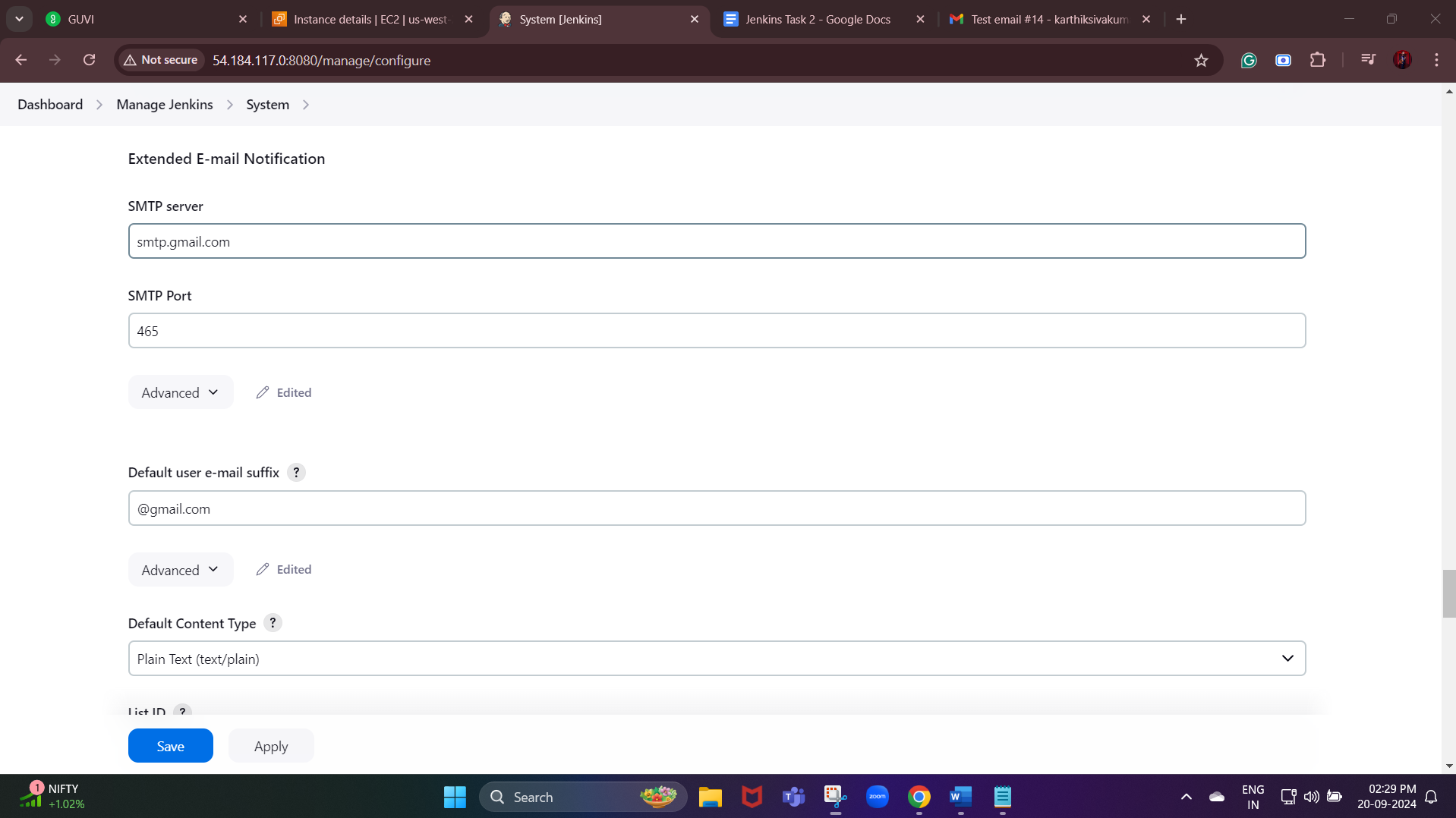
In password, we need to give an app password that should be taken from our google account under the security option.

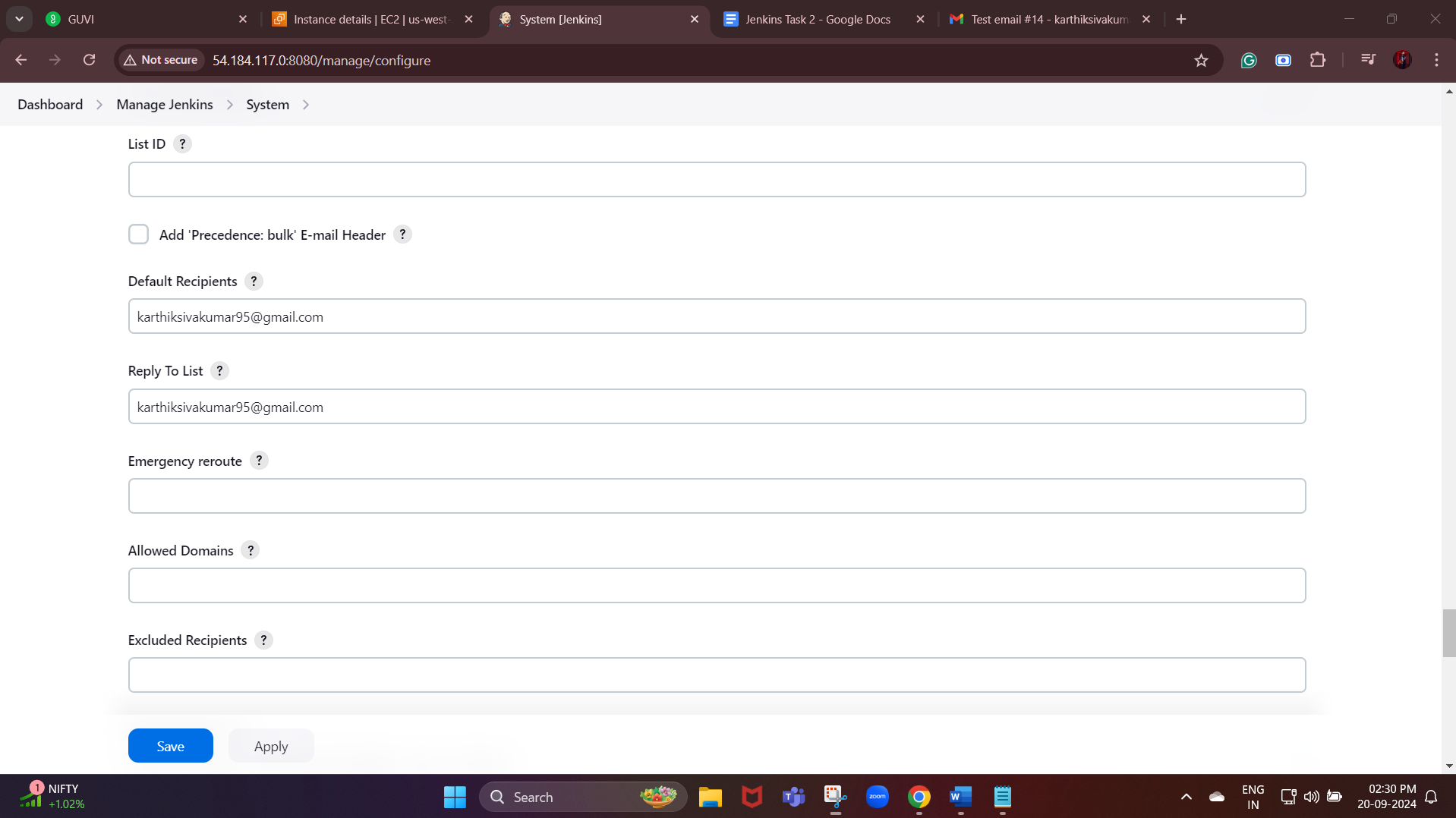
We also need to give access to the two-step verification in Google account

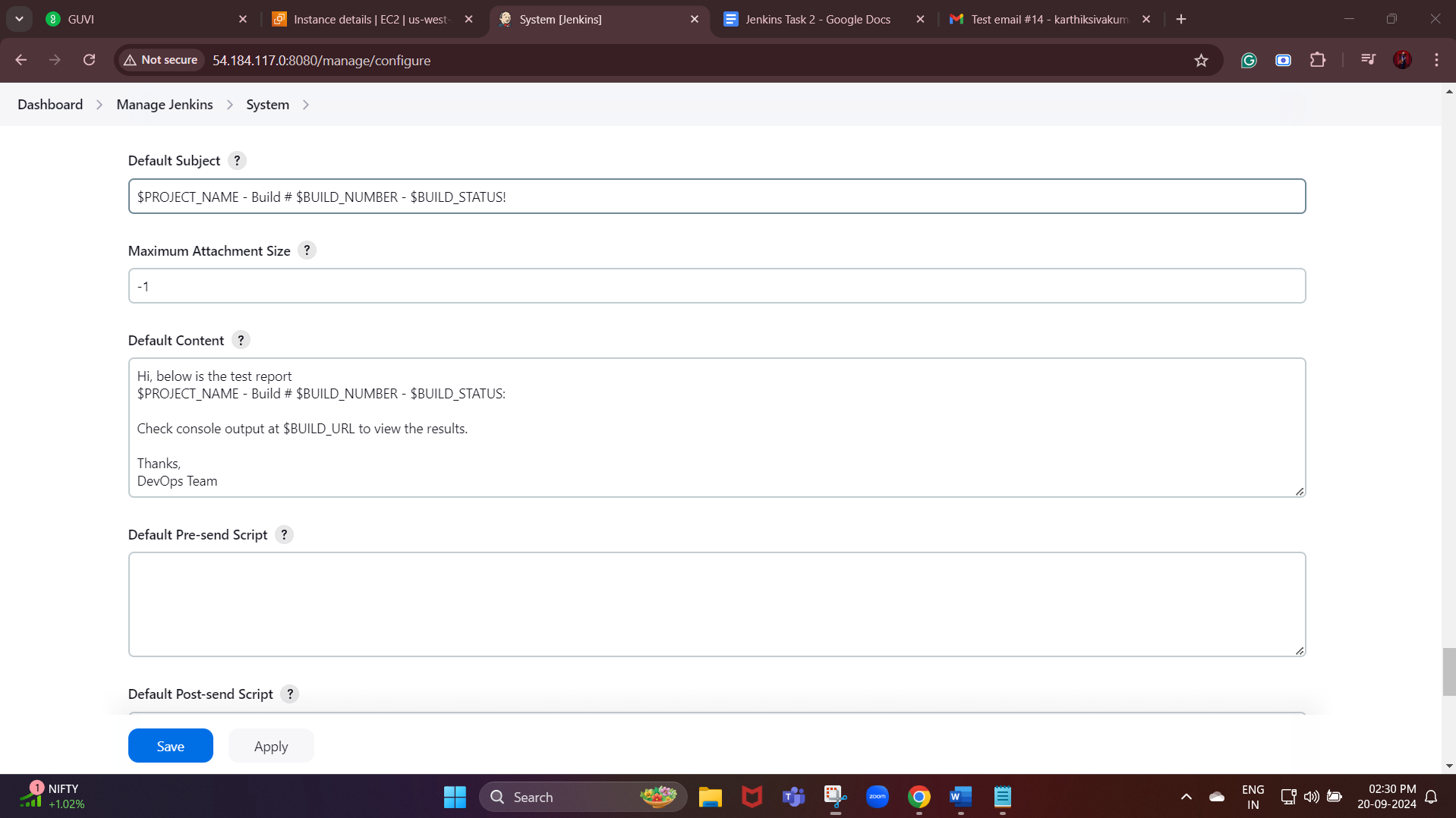
By giving our email ID to the test email recipient, we get a test mail from Jenkins



Now, we need to go to an extended email notification







After this, we need to give a build we get a notification from Jenkins with the attached file.

Email notification:

