



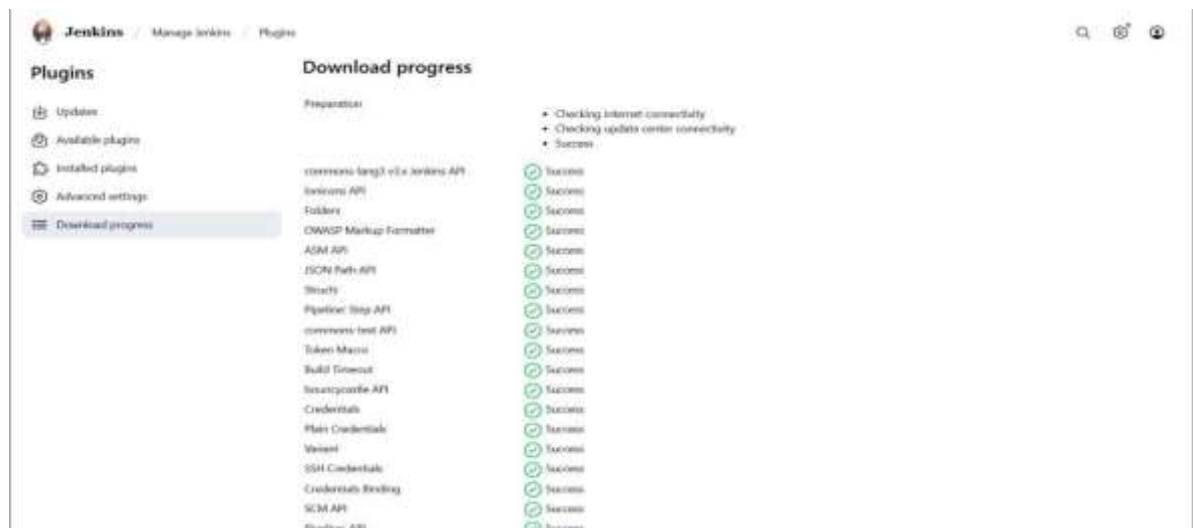
Semester:V
Academic Year: 2025-26
Class / Branch: TE IT B
Subject: Advanced Devops Lab (ADL)
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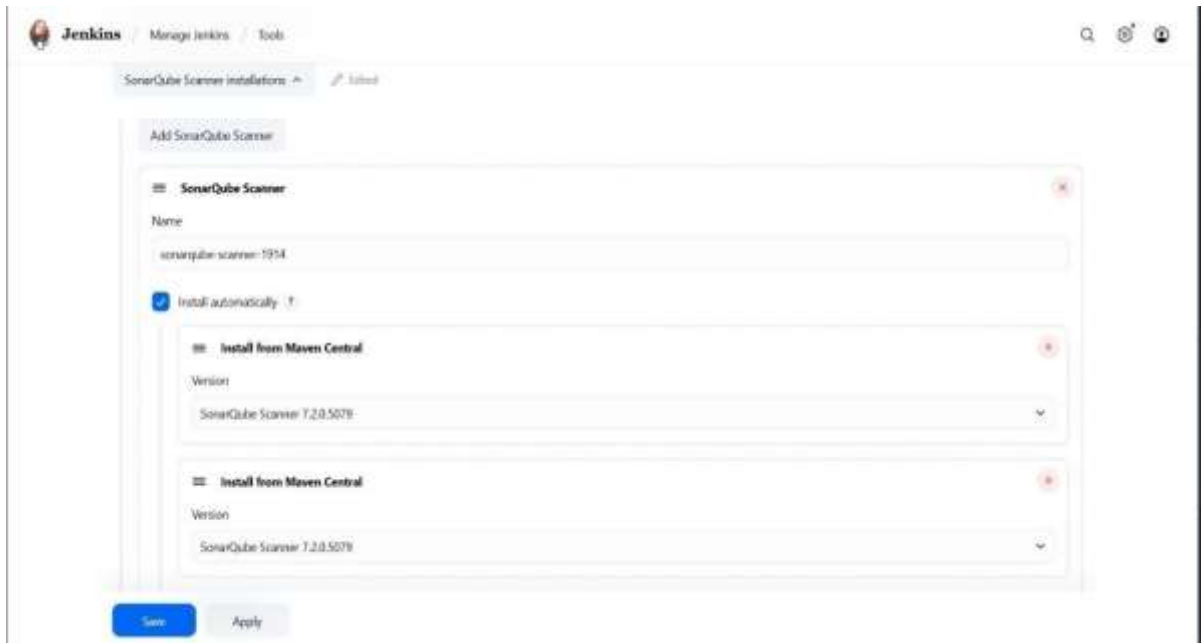
EXPERIMENTNO.8

Aim:To create a Jenkins CICD Pipeline with SonarQube / GitLab Integration to perform a static analysisofthecodetodetectbugs,codesmells,andsecurityvulnerabilitiesonasampleWeb/Java / Pythonapplication

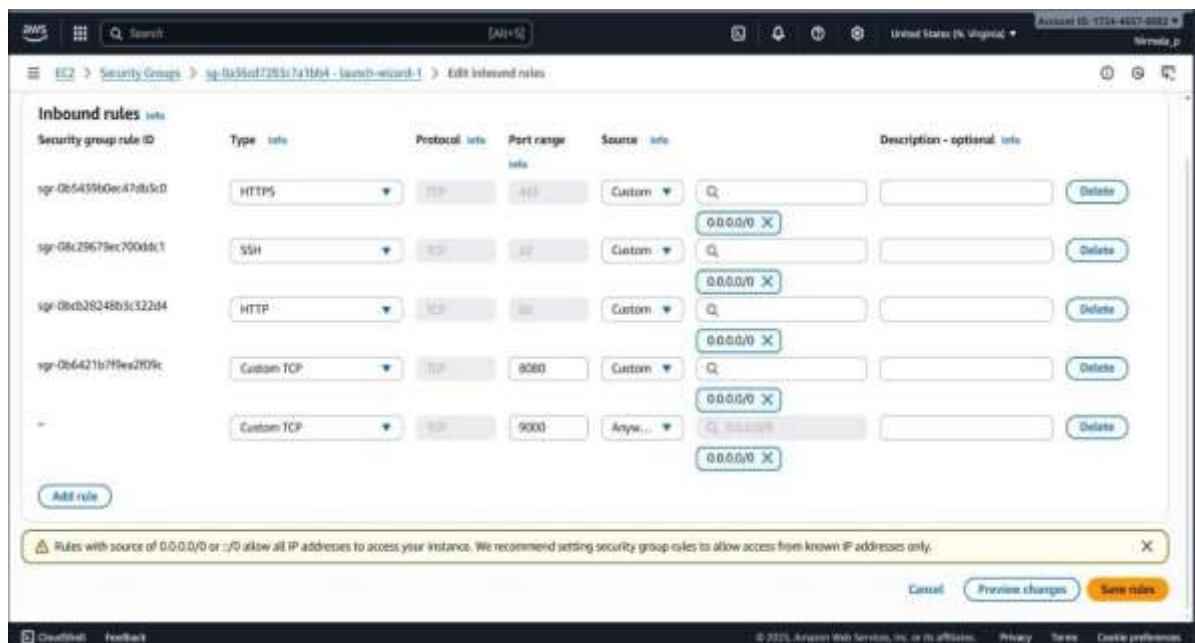
Step1:GotoJenkinsDashboard->manageJenkins ->AvailablePlugins ->InstallPlugin



Step2:Gotojenkinsdashboard->managejenkins->systemconfiguration->tools-> Sonarqube scanner -> save



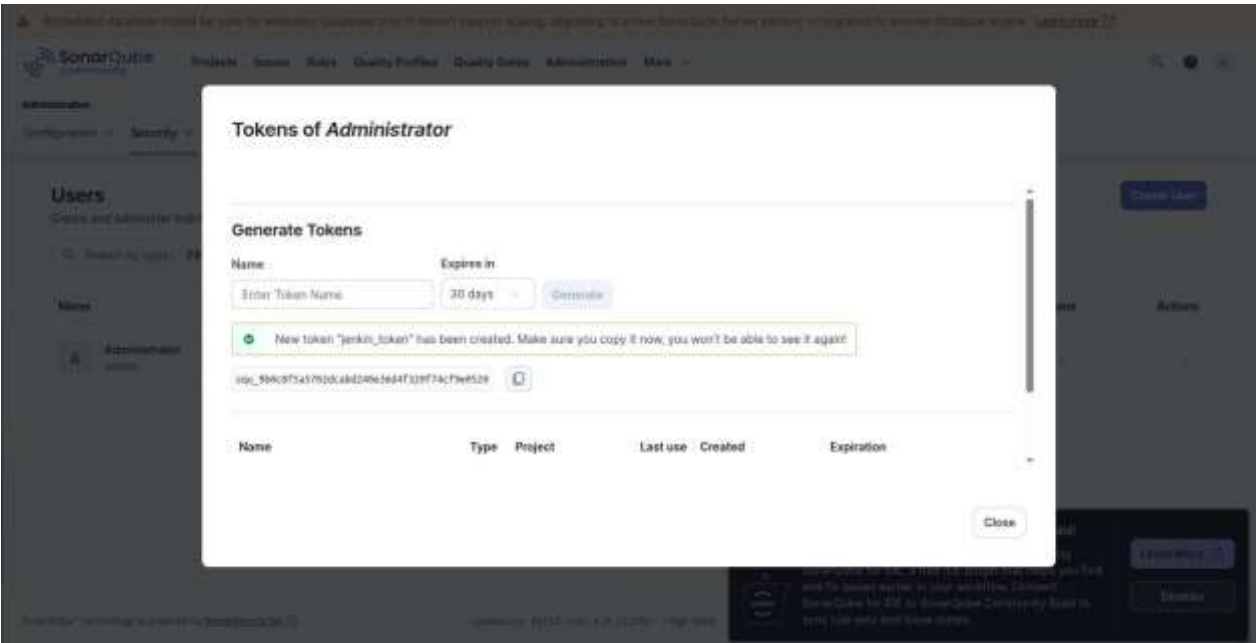
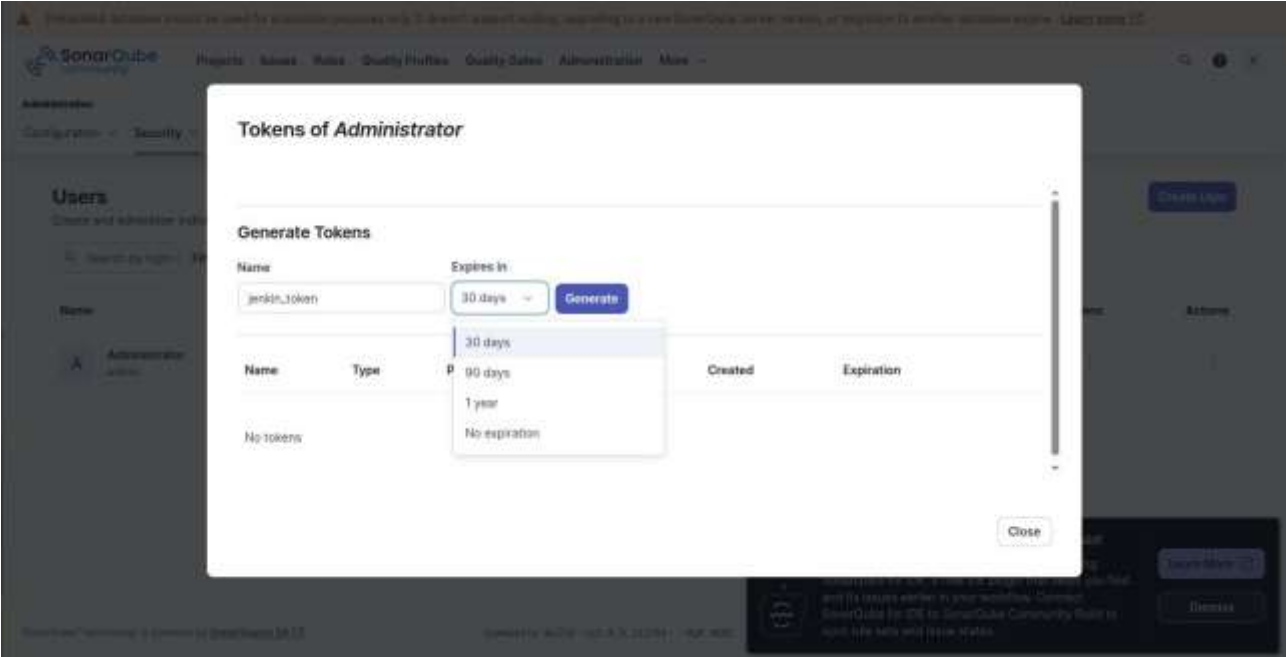
Step3:Editinboundrules->addport9000



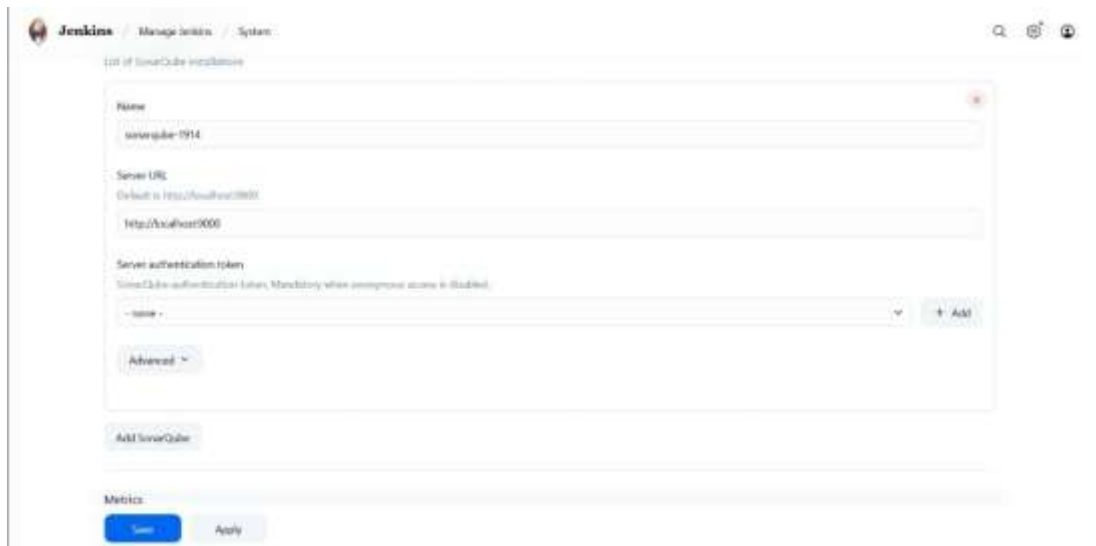
Step4:Gotobrowser -><http://localhost:9000>

- ┆ typeusernameandpasswordas‘admin’
- ┆ Setnewpassword

Step6:Gototheadadministrationtabandthengenerateatokenwhichwillbevaliduntil30days.

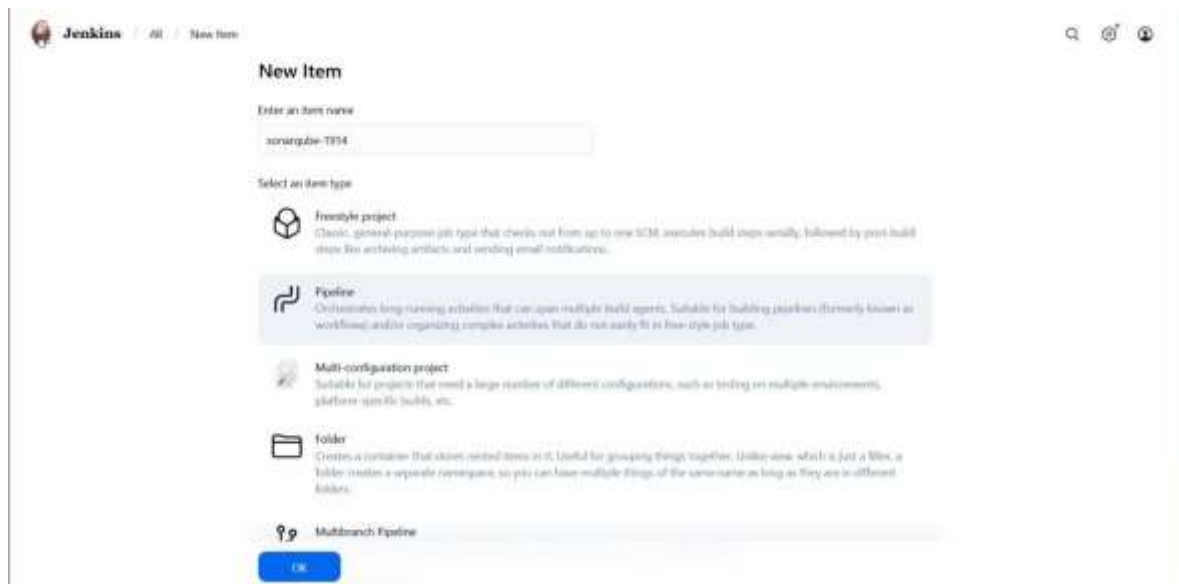


Step7:Changesystemconfigurationinjenkins Add server url -> 'http://localhost://9000'



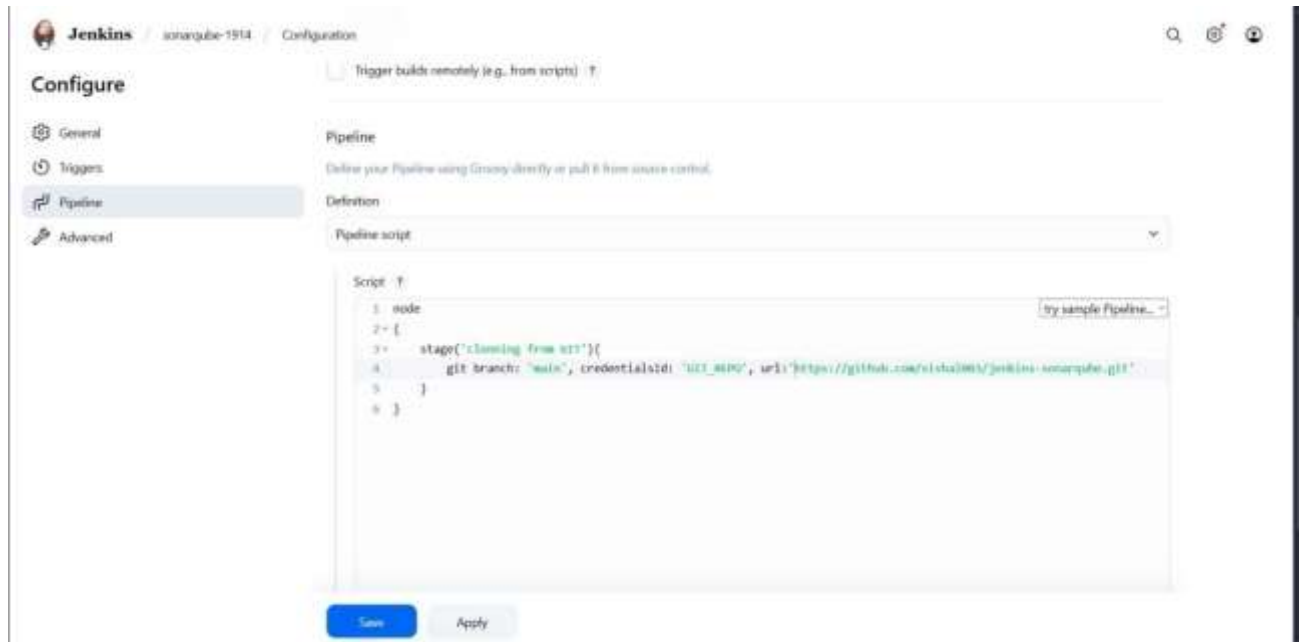
The screenshot shows the Jenkins 'Manage Jenkins' > 'System' configuration page. Under the 'List of SonarQube installations' section, there is a form for adding a new installation. The 'Name' field is filled with 'sonarqube-1914'. The 'Server URL' field is filled with 'http://localhost:9000'. The 'Server authentication token' dropdown is set to 'none'. Below the form is an 'Add SonarQube' button. At the bottom of the page, there are 'Save' and 'Apply' buttons.

Step8:GotojenkinsDashboard->newitem->selectpipeline



The screenshot shows the Jenkins 'New Item' page. The 'Enter an item name' field is filled with 'sonarqube-1914'. Under the 'Select an item type' section, the 'Pipeline' option is selected and highlighted. The 'Pipeline' description reads: 'Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.' At the bottom, there is a blue 'OK' button.

Step9:Addthescriptinthepipeline.



Step10:BuildtheProjectandchecktheconsoleoutput.



Conclusion:Inthisexperiment,IunderstoodhowSASThelpstofindsecurityissuesinthecode before running the program. By connecting Jenkins with SonarQube, we can automatically check the code in the pipeline and fix problems early. This makes the code safer, better in quality, and reduces risks during development.