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Install Jenkins with Docker

1. Install **Docker** on your personal laptop or Cloud instance or Virtual Machine.
2. Download and [Run Jenkins in Docker](#)
3. Get Admin Password for Jenkins Setup
 - o `docker exec -it blueocean[name of your container] /bin/bash`
 - o `cat /var/jenkins_home/secrets/initialAdminPassword` or
 - o `docker logs <<CONTAINER_ID>>`

Install and Configure SonarQube

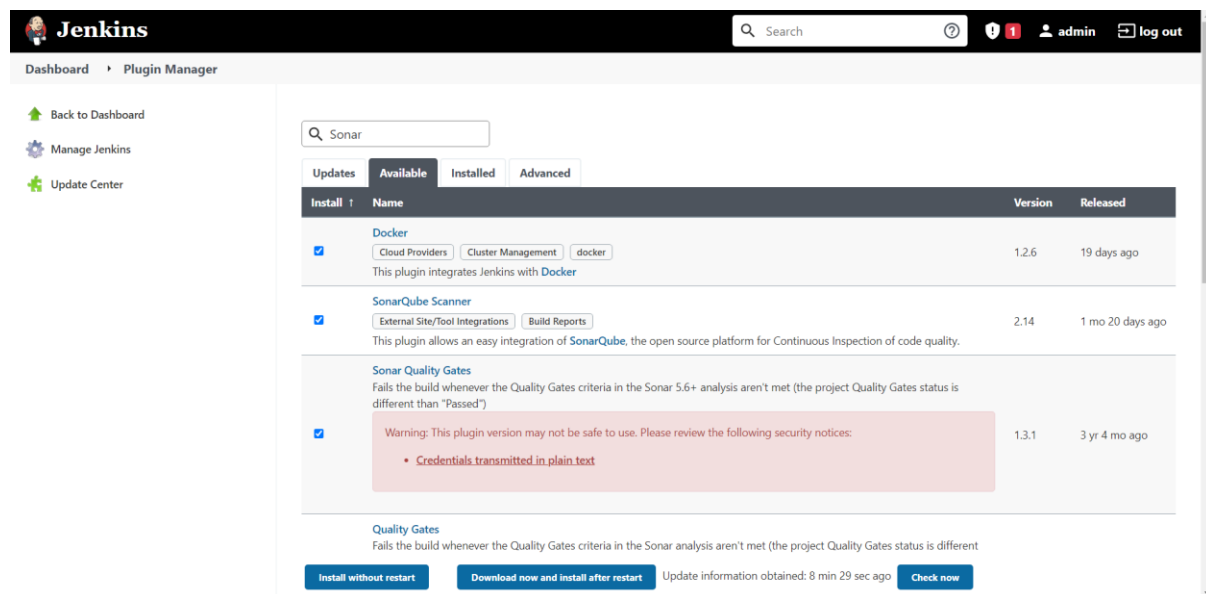
Install and Configure SonarQube <https://agile-devops-sre.com/2022/01/03/install-and-configure-sonarqube/> in EC2 instance (t2.small – Not available in free tier) or in your Laptop if Docker is setup in Laptop.

Note: In this case, you can have your SonarQube installed on your laptop. Docker is also available on your laptop where you are running Jenkins. Hence your Jenkins will be able to access localhost:9000 for SonarQube as all setup is available on same system.

Jenkins and SonarQube Integration

Install Plugins for Docker and SonarQube as Docker containers will be used as Agent in Pipelines. For SonarQube, SonarQube Scanner and Quality Gates plugins are required.

1. Jenkins Dashboard -> Manage Jenkins -> Manage Plugins -> Available Tab










The screenshot shows the Jenkins Plugin Manager interface. The left sidebar contains links to the Dashboard, Manage Jenkins, and Update Center. The main area displays a search for 'Sonar' with tabs for Updates, Available, Installed, and Advanced. A table lists available plugins:

Install	Name	Version	Released
<input checked="" type="checkbox"/>	Docker Cloud Providers Cluster Management docker This plugin integrates Jenkins with Docker	1.2.6	19 days ago
<input checked="" type="checkbox"/>	SonarQube Scanner External Site/Tool Integrations Build Reports This plugin allows an easy integration of SonarQube, the open source platform for Continuous Inspection of code quality.	2.14	1 mo 20 days ago
<input checked="" type="checkbox"/>	Sonar Quality Gates Fails the build whenever the Quality Gates criteria in the Sonar 5.6+ analysis aren't met (the project Quality Gates status is different than "Passed") Warning: This plugin version may not be safe to use. Please review the following security notices: <ul style="list-style-type: none">• Credentials transmitted in plain text	1.3.1	3 yr 4 mo ago


At the bottom, there is a 'Quality Gates' section with a description and a 'Check now' button. The update information is noted as '8 min 29 sec ago'.


2. Create Credential for SonarToken in Jenkins


 Jenkins


     admin  log out

Dashboard > Credentials > System > Global credentials (unrestricted) > SonarToken

 Back to Global credentials (unrestricted)

 Update

 Delete

 Move

Scope

Global (Jenkins, nodes, items, all child items, etc)

Secret

Concealed

Change Password

ID

SonarToken

Description

Save

REST API Jenkins 2.319.1

- Go to Manage Jenkins -> Configure System -> SonarQube.
- Add SonarQube Server Details.

Dashboard > configuration

SonarQube servers

☐ **Environment variables** Enable injection of SonarQube server configuration as build environment variables
If checked, job administrators will be able to inject a SonarQube server configuration as environment variables in the build.

SonarQube installations

Name


SonarQube

Server URL

http://ec2-35-176-37-90.eu-west-2.compute.amazonaws.com:9000

Default is http://localhost:9000

Server authentication token

SonarToken 

SonarQube authentication token. Mandatory when anonymous access is disabled.

Advanced...

Delete SonarQube

Add SonarQube

List of SonarQube installations

Save

Apply

Or

Dashboard › configuration

SonarQube installations

Name

SonarQube

Server URL

http://localhost:9000

Default is http://localhost:9000

Server authentication token

SonarToken

Add

SonarQube authentication token. Mandatory when anonymous access is disabled.

Advanced...

Delete SonarQube

Add SonarQube

List of SonarQube installations

Metrics

Access keys

Add new access key

Pipeline Speed/Durability Settings

Save

Apply

Done!