What is Jenkins used for?

Jenkins is an open-source automation server used for continuous integration and continuous delivery (CI/CD). It automates tasks such as building, testing, and deploying applications. Key uses include:

Continuous Integration (CI): Integrating code changes frequently and automatically.
Continuous Delivery/Deployment (CD): Automating deployment pipelines for rapid and reliable application deployment.
Build Automation: Compiling source code, running tests, and packaging applications.
Test Automation: Executing automated tests and analyzing test results.
Scalability and Distributed Builds: Distributing build tasks across multiple agents for faster execution.
Plugin Ecosystem: Extensive integration with other tools through a vast plugin ecosystem.
Extensibility: Highly customizable with custom scripts and complex build pipelines.
Jenkins improves software development and delivery processes, providing faster feedback, improved code quality, and accelerated application deployment.

2- what is plugins in jenkins ?

Plugins in Jenkins are modular components that extend its functionality and provide additional features and integrations. They allow users to customize and enhance Jenkins according to their specific requirements. Plugins can add support for various source code management systems, build tools, testing frameworks, deployment technologies, reporting tools, and more.

In short, plugins are add-ons that extend Jenkins' capabilities and enable users to integrate Jenkins with a wide range of tools and technologies, enhancing its flexibility and customization options.

3- Install jenkins with docker image.

```
abdelfattah@abdelfattah-Ashraf:-$ sudo docker run -p 8080:8080 -p 50000:50000 -d  -v jenkins_home:/var/jenkins_home  -v /var/run/docker.sock:/var/run/docker.sock  -v $(which docker):/usr/bin/docker jenkins/jenki
ns:lts
Unable to find image 'jenkins/jenkins:lts' locally
lts: Pulling from jenkins/jenkins
bd73737482dd: Pull complete
747b9186aa97: Pull complete
77e4b3fa9f98: Pull complete
4185da018337: Pull complete
7bfe8a536a91: Pull complete
c28d8031aee7: Pull complete
d90093f5fc84: Pull complete
b7bf9221df23: Pull complete
22a3392c99b4: Pull complete
bbe8cad20a08: Pull complete
81331c127c6: Pull complete
c125b4d0161b: Pull complete
da080ad7c1d0: Pull complete
Digest: sha256:90f7f78a7e114516216b6c0a06e00c597d6490597caec9d7bd7a95ce5c7dada0
```

```
Execute a command in a running container
abdelfattah@abdelfattah-Ashraf:-$ docker exec -it 785381f7c7de cat /var/jenkins_home/secrets/initialAdminPassword
fe94ecf2ead64a57ad7f511a38628021
abdelfattah@abdelfattah-Ashraf:-$ docker stop 785381f7c7de
```

4- Create free style project and link it to private git repo containing any dockerfile then biuld an image from this dockerfile and push it to private docker repo.

```
Login Succeeded
+ docker push abdelfattah187/jnk:1
The push refers to repository [docker.io/abdelfattah187/jnk]
72ae3f9ba5e4: Preparing
6b5aaff44254: Preparing
53a0b163e995: Preparing
b626401ef603: Preparing
9b55156abf26: Preparing
293d5db30c9f: Preparing
03127cdb479b: Preparing
9c742cd6c7a5: Preparing
293d5db30c9f: Waiting
03127cdb479b: Waiting
9c742cd6c7a5: Waiting
b626401ef603: Mounted from library/openjdk
9b55156abf26: Mounted from library/openjdk
53a0b163e995: Mounted from library/openjdk
6b5aaff44254: Mounted from library/openjdk
293d5db30c9f: Mounted from library/openjdk
03127cdb479b: Mounted from library/openjdk
72ae3f9ba5e4: Pushed
9c742cd6c7a5: Mounted from library/openjdk
1: digest: sha256:bc1f6d63f49b26a55d3d218895dc42bc91f132092382d7ec509ac3b19dd1f5c9 size: 2003
Finished: SUCCESS
```

🌐 abdelfattah187 / **jnk**

Description

This repository does not have a description 🖉

🕐 Last pushed: a minute ago

Tags

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