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Installation Wizard

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Overview

Jenkins is a self-contained, open source automation server that can be used to automate all sorts of tasks related to building, testing, and delivering or deploying software.

Jenkins can be installed through native system packages, Docker, or even run standalone by any machine with a Java Runtime Environment (JRE) installed.

This document aims to guide you through:

- installing Jenkins
- the setup process of Jenkins, through the graphical (web) interface.

Tutorial

Installing Jenkins

Docker (Any Platform)

You will, of course, need Docker installed. However, with Docker, you can use the following command to install Jenkins:

```
docker run -d -p 8080:8080 --name jenkins jenkins/jenkins:lts-alpine
```

Windows

An installer can be downloaded and run to get Jenkins running on Windows here: <https://jenkins.io/download/>

Linux

Please note, if you are using the script then you will need to have **sudo** access on the machine you execute it on.
Simply put this script in a file on the machine you wish to install it on and execute it:

Jenkins Introduction

- ☒ Installation Wizard
- ☐ Jobs
- ☐ Freestyle Project
- ☐ Builds
- ☐ Plugins

Jenkins Pipeline

Markdown

IDE Cheatsheet

```
#!/bin/bash
if type apt > /dev/null; then
    pkg_mgr=apt
    java="openjdk-8-jre"
elif type yum > /dev/null; then
    pkg_mgr=yum
    java="java"
fi
echo "updating and installing dependencies"
sudo ${pkg_mgr} update
sudo ${pkg_mgr} install -y ${java} wget git > /dev/null
echo "configuring jenkins user"
sudo useradd -m -s /bin/bash jenkins
echo "downloading latest jenkins WAR"
sudo su - jenkins -c "curl -L https://updates.jenkins-ci.org/latest/jenkins.war --output jenkins.war"
echo "setting up jenkins service"
sudo tee /etc/systemd/system/jenkins.service << EOF > /dev/null
[Unit]
Description=Jenkins Server

[Service]
User=jenkins
WorkingDirectory=/home/jenkins
ExecStart=/usr/bin/java -jar /home/jenkins/jenkins.war

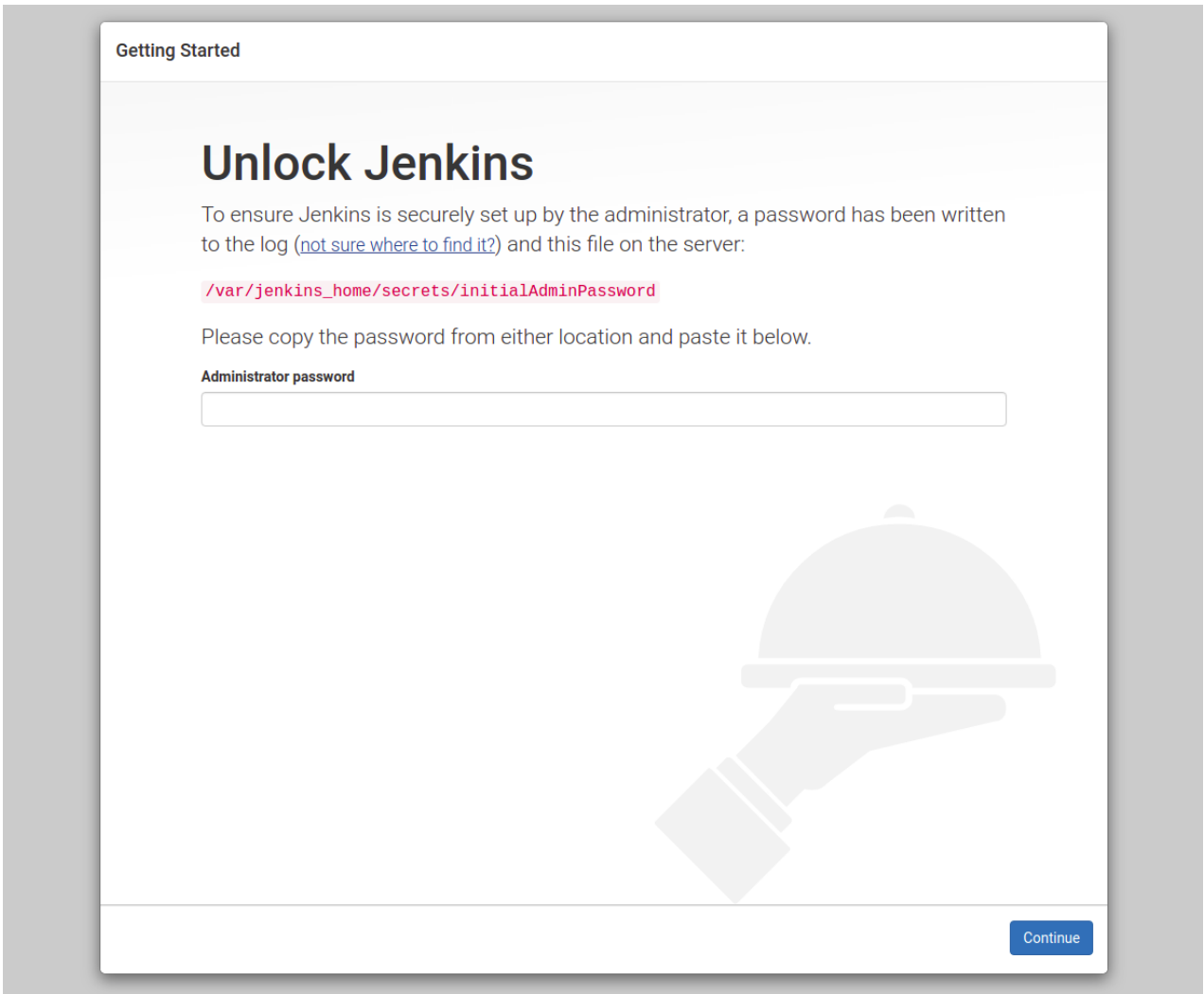
[Install]
WantedBy=multi-user.target
EOF
sudo systemctl daemon-reload
sudo systemctl enable jenkins
sudo systemctl restart jenkins
sudo su - jenkins << EOF
until [ -f .jenkins/secrets/initialAdminPassword ]; do
    sleep 1
    echo "waiting for initial admin password"
done
until [[ -n "$(cat .jenkins/secrets/initialAdminPassword)" ]]; do
    sleep 1
    echo "waiting for initial admin password"
done
echo "initial admin password: $(cat .jenkins/secrets/initialAdminPassword)"
EOF
```

Unlocking Jenkins

To begin the setup process for Jenkins, you will need to go to port 8080 on your machine.

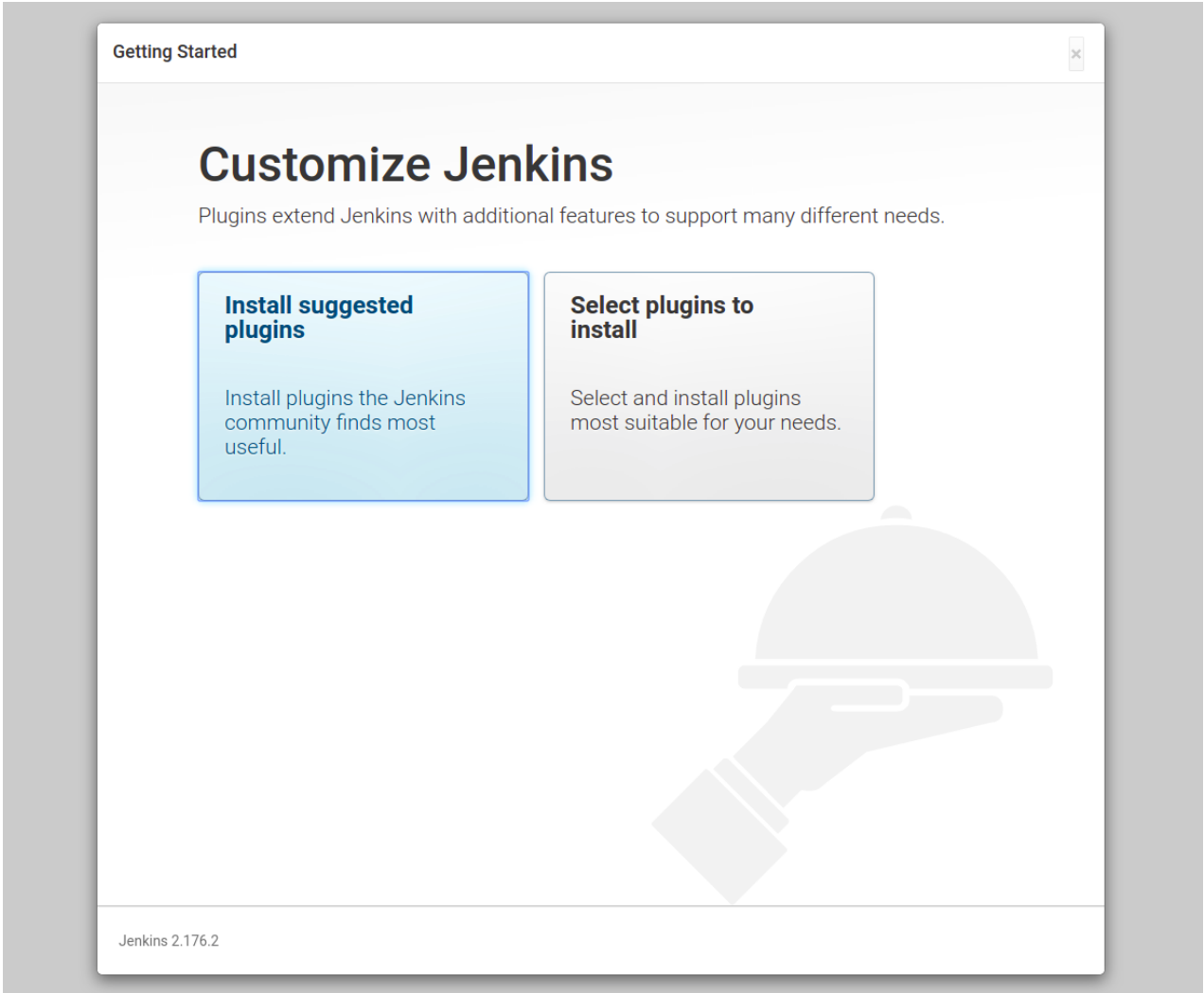
To make sure that it is you who is trying to configure Jenkins, the setup requires you to enter an initial admin password; this is stored on the file system of the machine that Jenkins is running on.

The page clearly states where this file is located - you just need to copy the contents of it into the text field and click Continue.



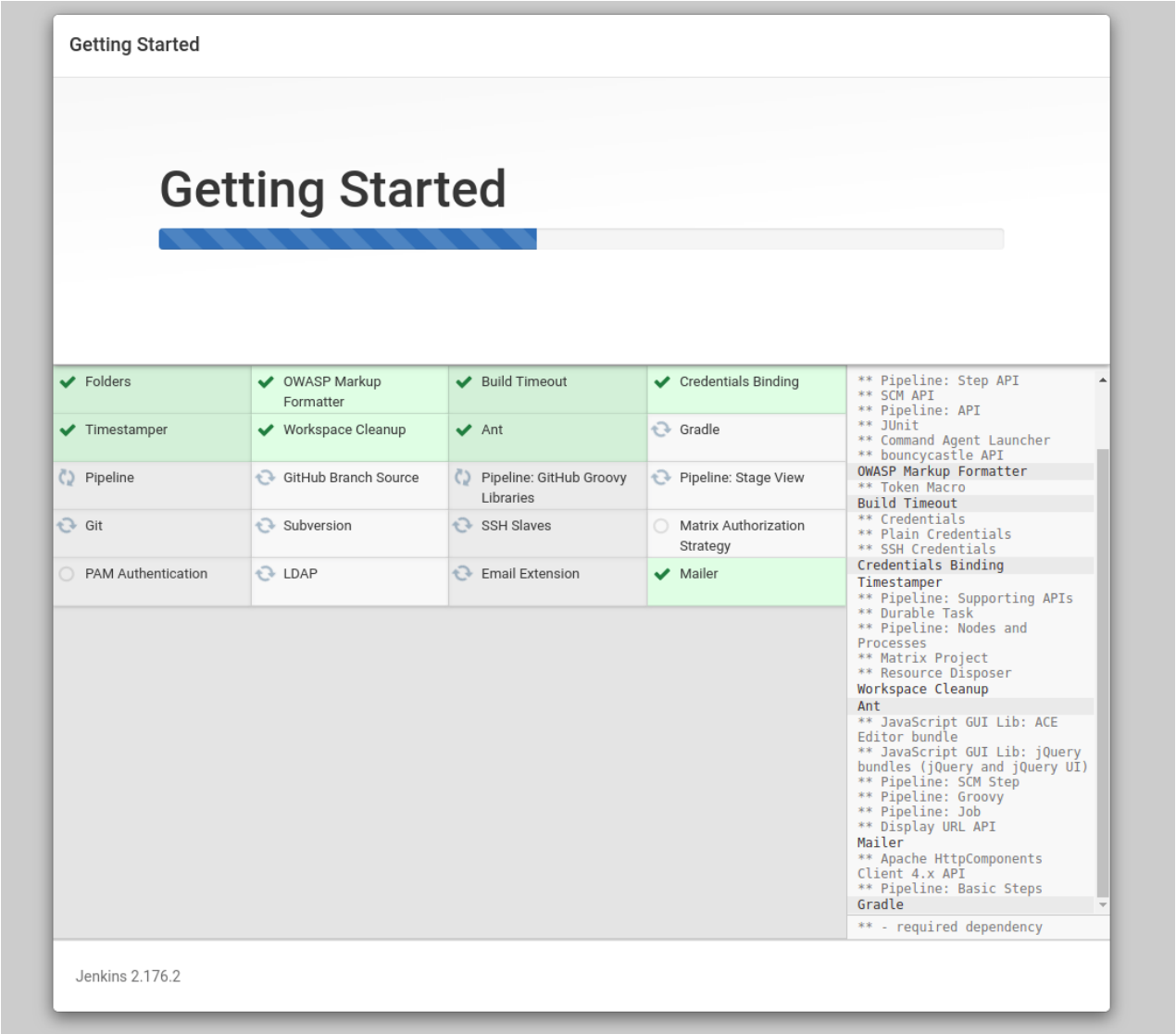
Customize Jenkins

Jenkins is highly configurable due to the amount of plugins that you can install. This is fantastic, but, if you are new to Jenkins, you might not have much of an idea about what plugins you would want. Fortunately, the setup gives you the option to install suggested plugins - select this option.



Plugin Installation

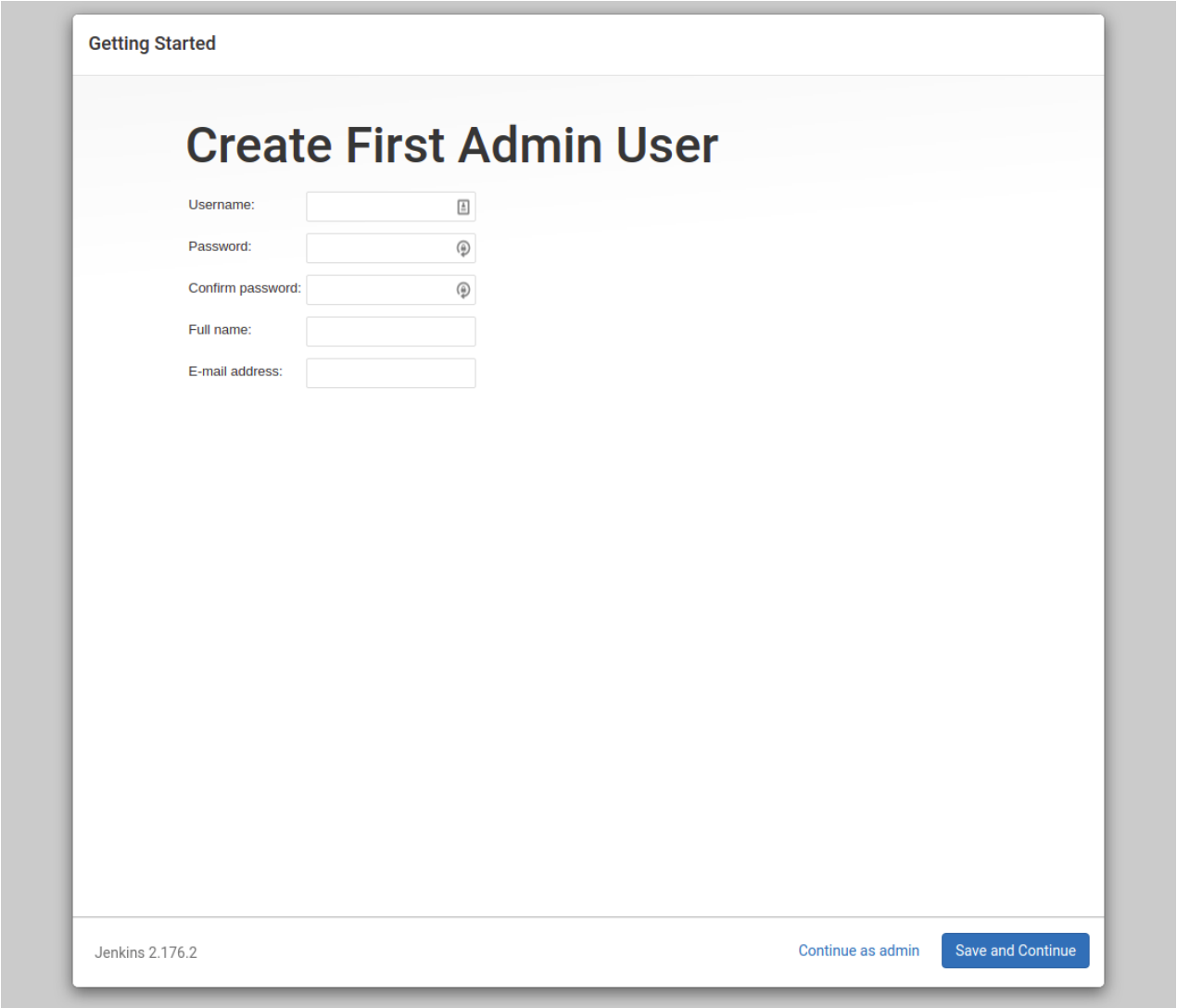
For this part, there isn't much to do but wait. The suggested plugins, or plugins that you selected, will be installed; how fast they are installed depends on your internet speed. If plugins are failing to install, make sure that you have the latest version on Jenkins installed.



Create the First Admin User

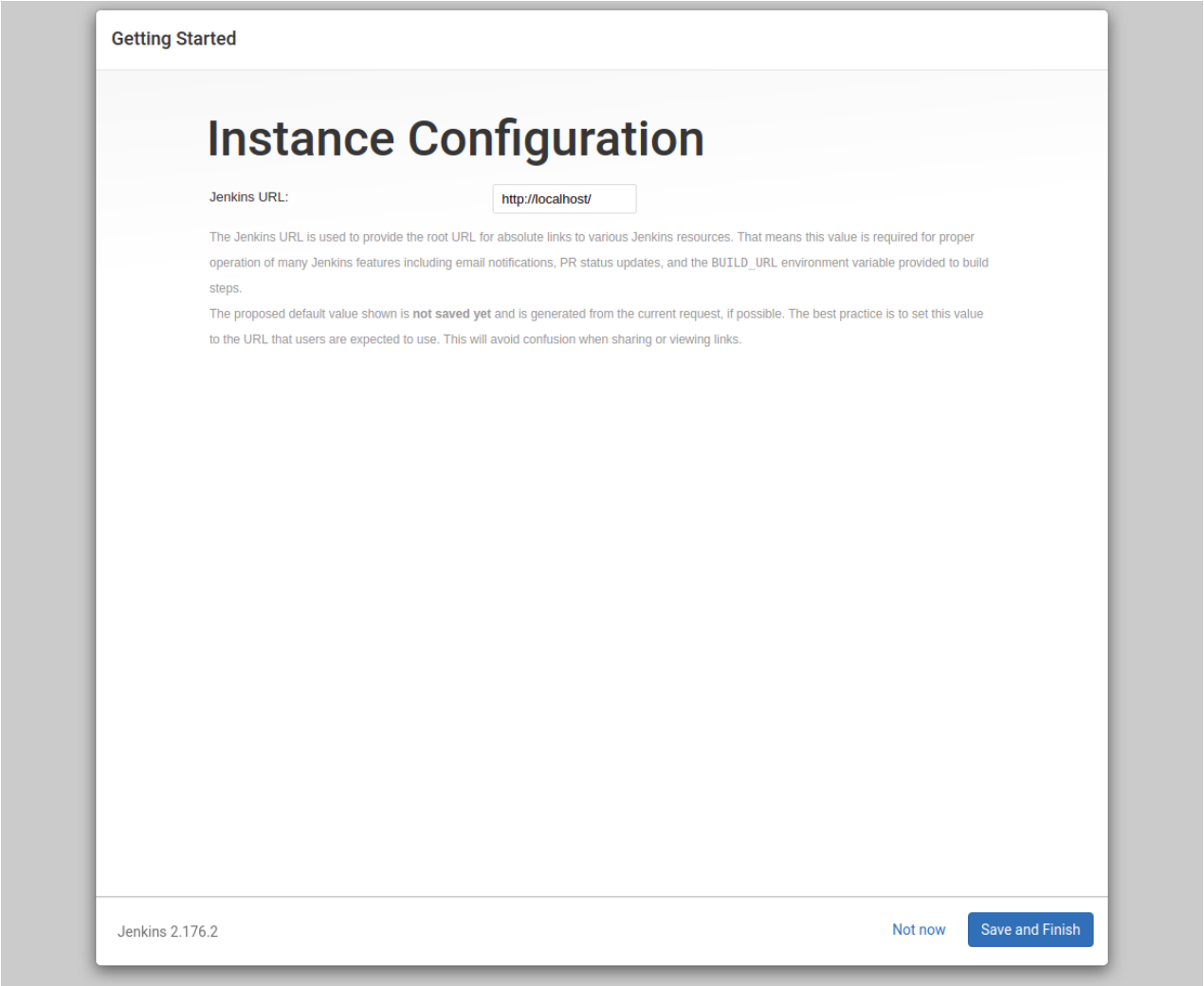
At this point, you can either fill in the form, to have your details saved into the first admin account, or continue as admin; this will mean that the admin user account name is **admin** and the password will stay as the initial admin password that you entered.

Be careful not to enter actual passwords and information here, especially if you are connected to a Jenkins instance over the internet with no TLS or SSL configured (HTTPS secure connection).



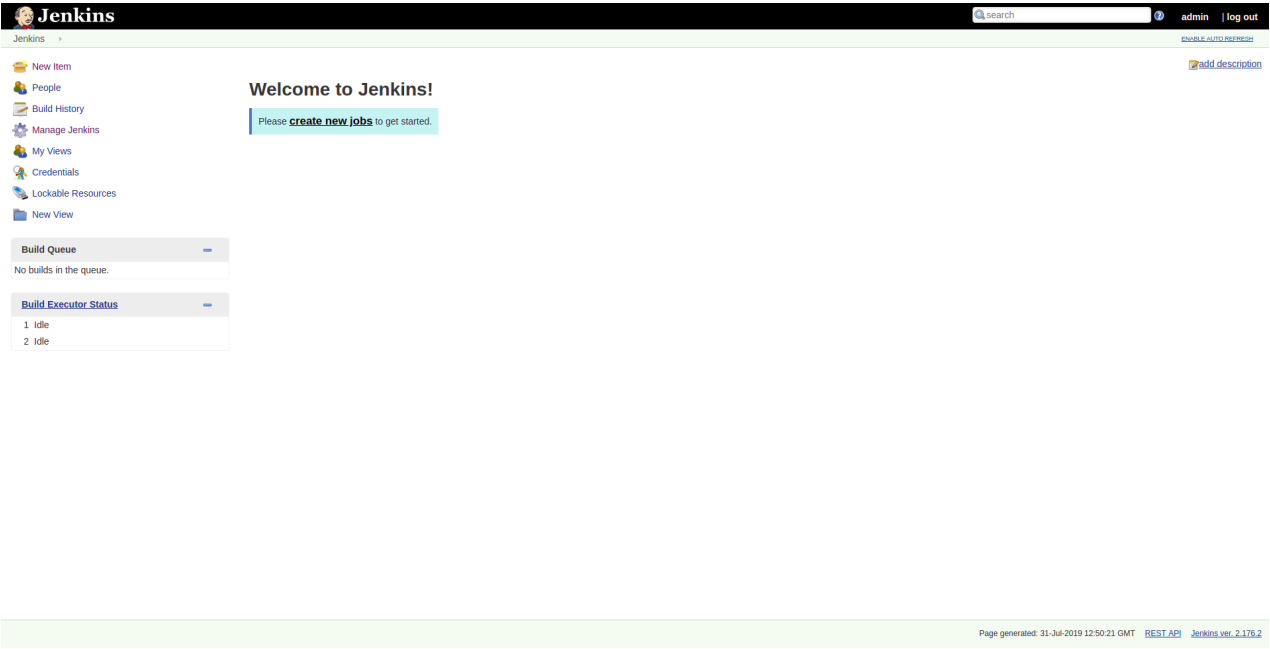
Instance Configuration

All you will need to for this step is to select **Save and Finish**.



Dashboard

You should now have Jenkins setup and have the following dashboard on your screen:



Dashboard Links

Link	Description
New Item	This is for creating new jobs in Jenkins. Jobs are essentially scripts that can be triggered.
People	The users that are registered to this instance of Jenkins.
Build History	A graph displaying the jobs that have been executed over time, through this instance of Jenkins.
Manage Jenkins	This is where to go for setting up plugins and other administrative settings for Jenkins.
My Views	You can customise how the jobs, and what jobs, are listed on the dashboard here.

Link	Description
Credentials	In the Jenkins jobs that you create, you may need to authenticate with external services, such as GitHub. Credentials for these external services can be stored securely here, and accessed by jobs and plugins when they need them.
Lockable Resources	This plugin allows defining lockable resources (such as printers, phones, computers, etc.) that can be used by builds. If a build requires a resource that is already locked, it will wait for the resource to be free. You can define a lock-priority globally or on a per-job basis.

Exercises

There are no exercises for this module.