

Set Up Project in Jenkins

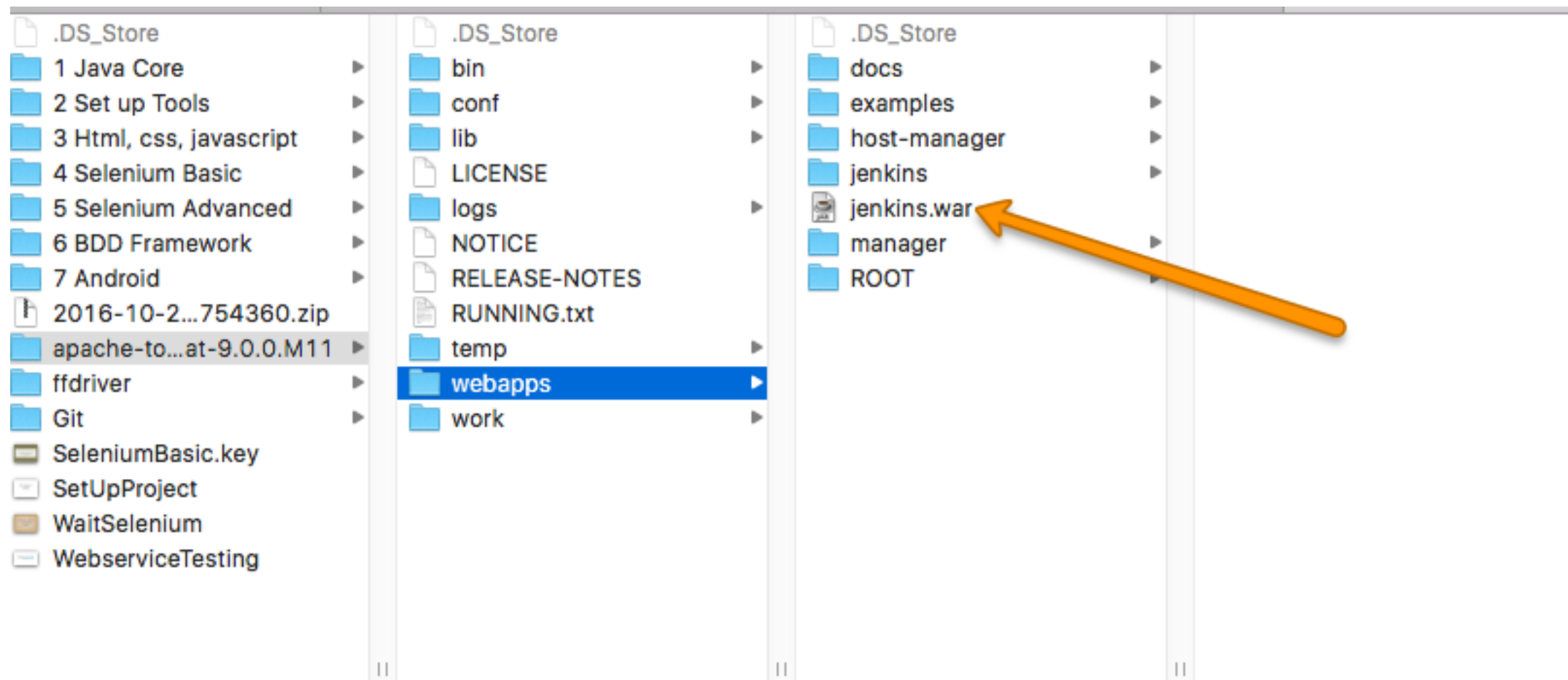
Present By Thuy Nguyen

JENKINS

- Server Tomcat <https://tomcat.apache.org/download-90.cgi>
- Jenkins War <https://jenkins.io> or <https://updates.jenkins-ci.org/download/war/>

Build Jenkins War

- Put jenkins war file into the folder webapps in Tomcat server



Start/Stop Tomcat

- Navigate to bin folder in Tomcat server folder

Windows: run startup.bat/ shutdown.bat

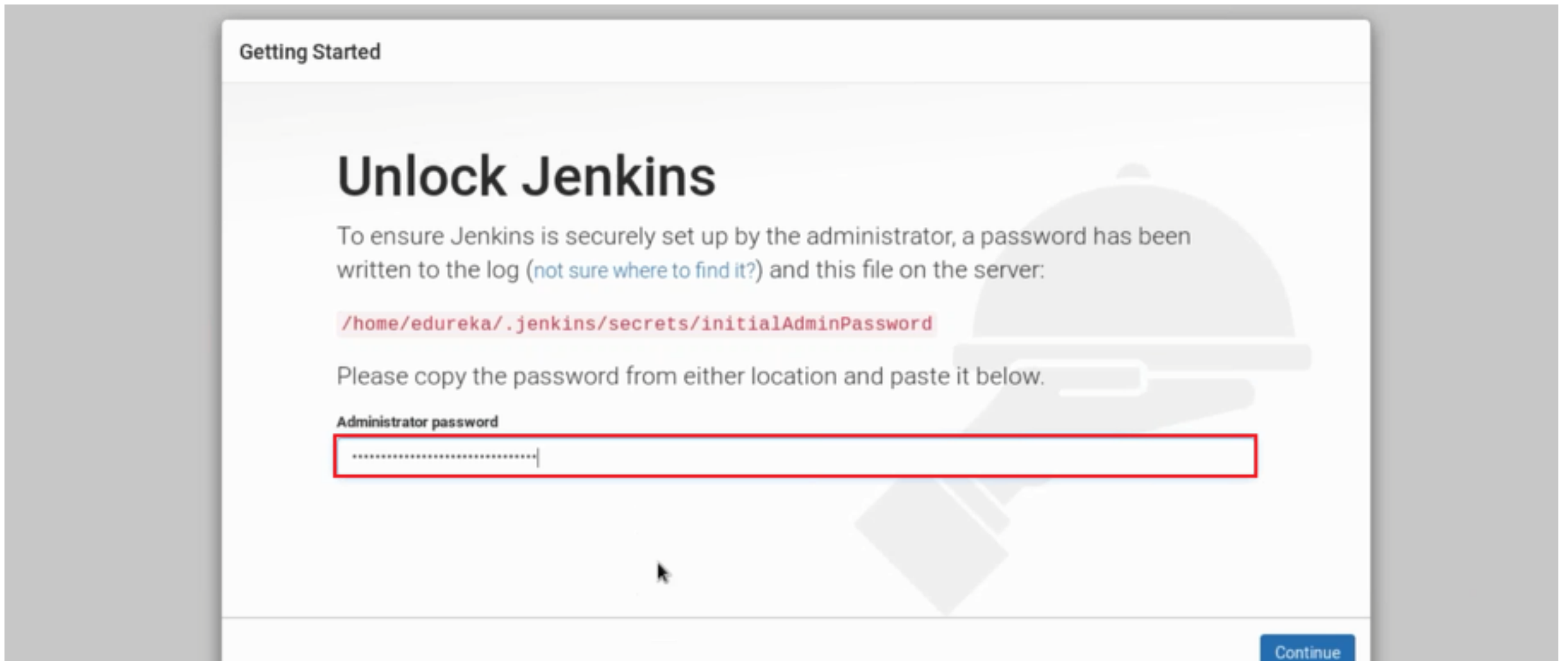
Mac: run startup.sh/shutdown.sh

Run Jenkins

- Default <http://localhost:8080/jenkins>

Install Jenkins

- In case the first time you install the Jenkins, you will see some screen below:



Getting Started

Unlock Jenkins

To ensure Jenkins is securely set up by the administrator, a password has been written to the log ([not sure where to find it?](#)) and this file on the server:

`/home/edureka/.jenkins/secrets/initialAdminPassword`

Please copy the password from either location and paste it below.

Administrator password

Continue

- Open file initialAdminPassword follow the link and copy/paste password into the textbox in this screen

Install Jenkins

Customize Jenkins

Plugins extend Jenkins with additional features to support many different needs.

Install suggested plugins

Install plugins the Jenkins community finds most useful.

Select plugins to install

Select and install plugins most suitable for your needs.

- Next screen, click the Install suggested plugins

Install Jenkins

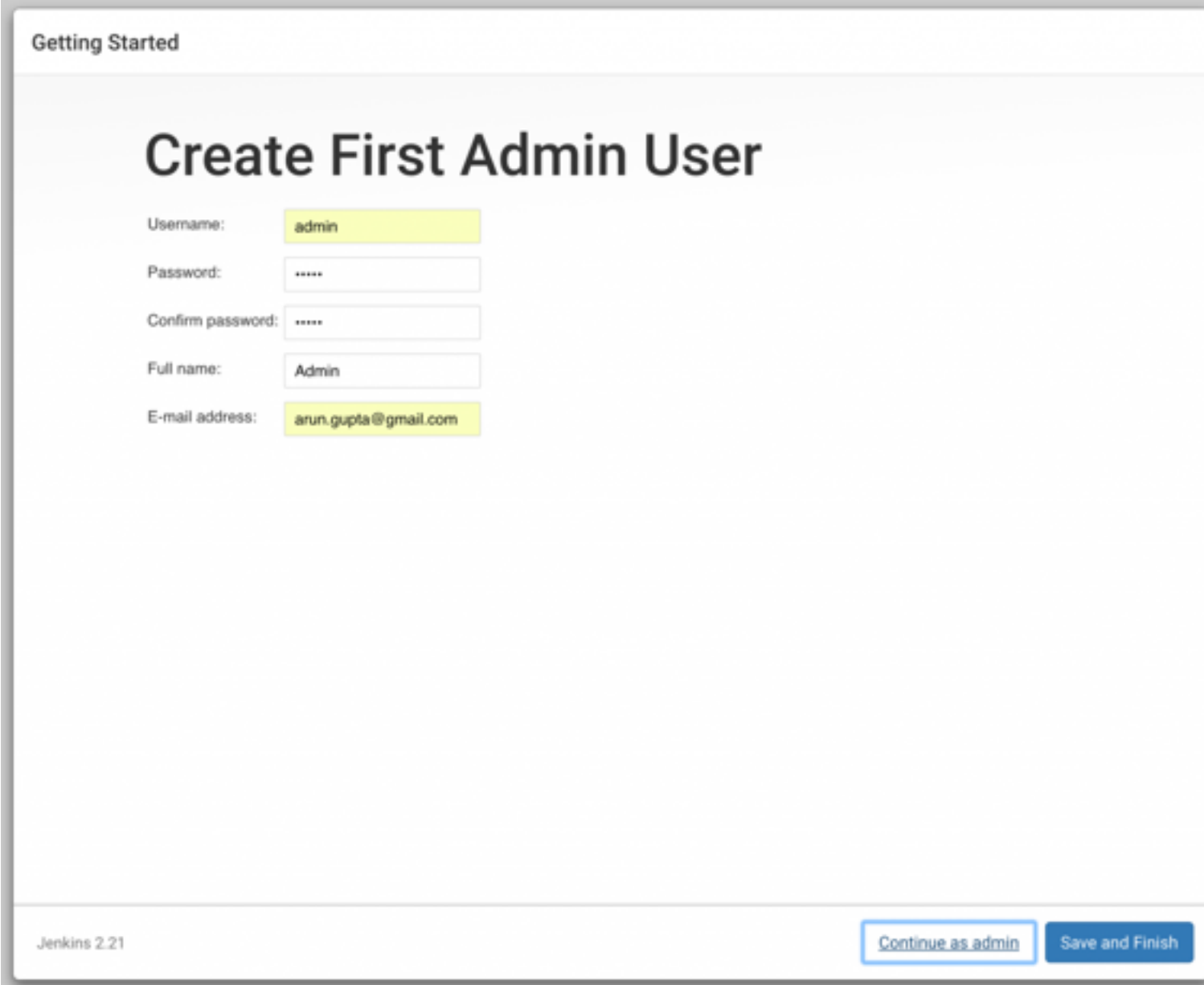
Getting Started

Getting Started

✓ Ant Plugin	✓ OWASP Markup Formatter Plugin	✓ build timeout plugin	✓ Folders Plugin	** Script Security Plugin
✓ Credentials Binding Plugin	✓ Email Extension Plugin	✓ Git plugin	⚙ Gradle plugin	** Matrix Project Plugin
✓ LDAP Plugin	✓ Mailer Plugin	✓ Matrix Authorization Strategy Plugin	✓ PAM Authentication plugin	** Windows Slaves Plugin
⚙ Pipeline: Stage View Plugin	⚙ SSH Slaves plugin	⚙ Subversion Plug-in	○ Timestampers	Jenkins Mailer Plugin
⚙ Pipeline	⚙ GitHub Organization Folder Plugin	⚙ Workspace Cleanup Plugin		LDAP Plugin
				** Icon Shim Plugin
				Matrix Authorization Strategy Plugin
				OWASP Markup Formatter Plugin
				** External Monitor Job Type Plugin
				Ant Plugin
				OWASP Markup Formatter Plugin
				** Token Macro Plugin
				Jenkins build timeout plugin
				Folders Plugin
				** Credentials Plugin
				** Structs Plugin
				** Pipeline: Step API
				** Plain Credentials Plugin
				Credentials Binding Plugin
				Email Extension Plugin
				** SSH Credentials Plugin
				** Jenkins Git client plugin
				** SCM API Plugin
				Jenkins Git plugin
				** - required dependency

- Waiting for installing completely

Install Jenkins



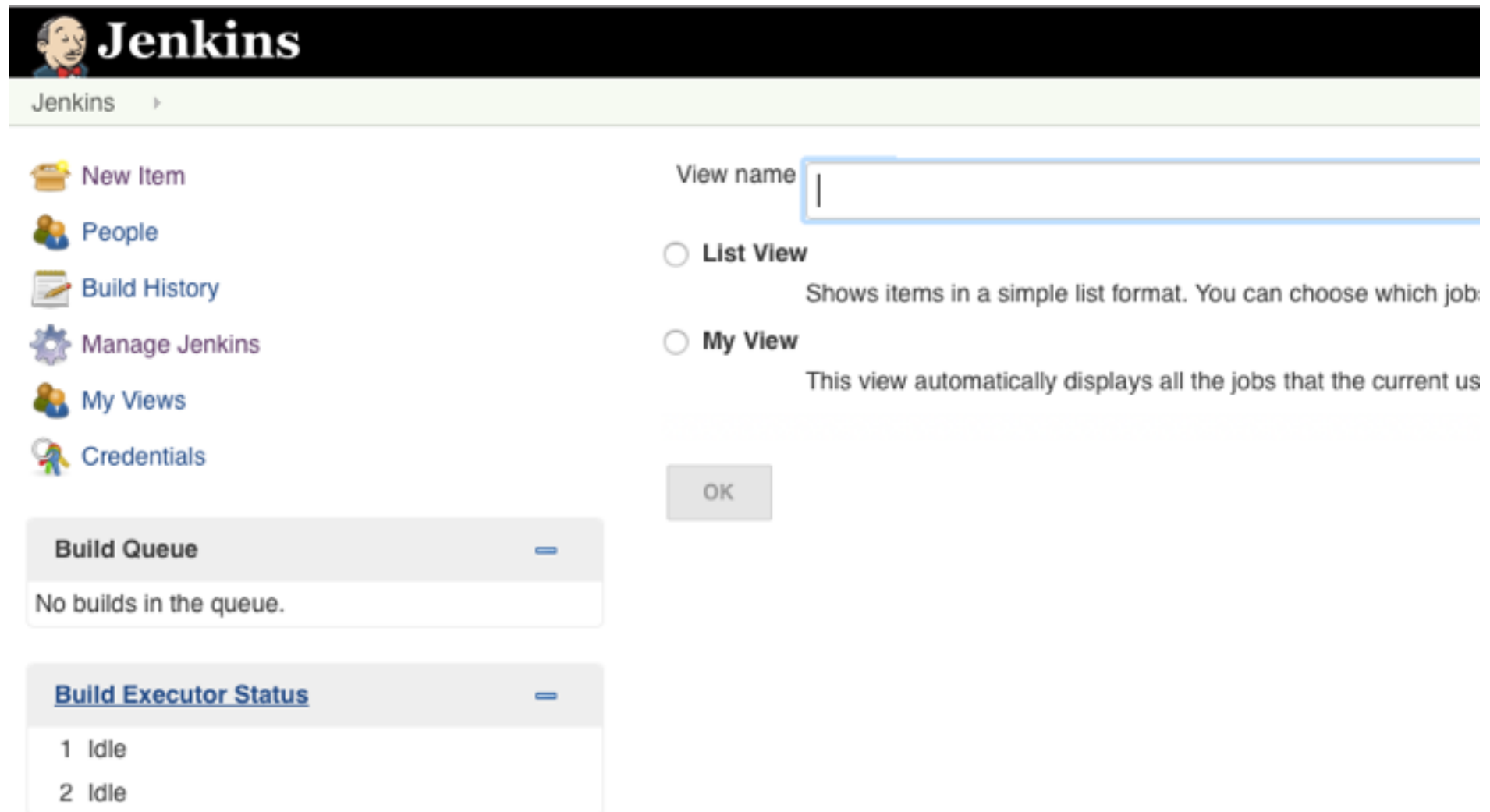
The image shows the 'Getting Started' page of Jenkins 2.21, specifically the 'Create First Admin User' form. The form contains the following fields and values:

Field	Value
Username:	admin
Password:	*****
Confirm password:	*****
Full name:	Admin
E-mail address:	arun.gupta@gmail.com

At the bottom right, there are two buttons: 'Continue as admin' (highlighted with a blue border) and 'Save and Finish' (a solid blue button). The version 'Jenkins 2.21' is displayed in the bottom left corner.

- Create a user for logging in jenkins

Install Jenkins



The screenshot shows the Jenkins web interface. At the top is a black header with the Jenkins logo and name. Below it is a light green navigation bar with the text 'Jenkins' and a right-pointing arrow. On the left side, there is a vertical menu with icons and labels: 'New Item' (folder icon), 'People' (group of people icon), 'Build History' (notepad icon), 'Manage Jenkins' (gear icon), 'My Views' (group of people icon), and 'Credentials' (key icon). The main content area is divided into two columns. The left column contains two expandable panels: 'Build Queue' (showing 'No builds in the queue.') and 'Build Executor Status' (showing two executors, both 'Idle'). The right column contains a 'View name' text input field, two radio button options: 'List View' (with description 'Shows items in a simple list format. You can choose which jobs') and 'My View' (with description 'This view automatically displays all the jobs that the current user has access to'), and an 'OK' button at the bottom.

Jenkins

Jenkins >

- New Item
- People
- Build History
- Manage Jenkins
- My Views
- Credentials

Build Queue

No builds in the queue.

Build Executor Status

- 1 Idle
- 2 Idle

View name

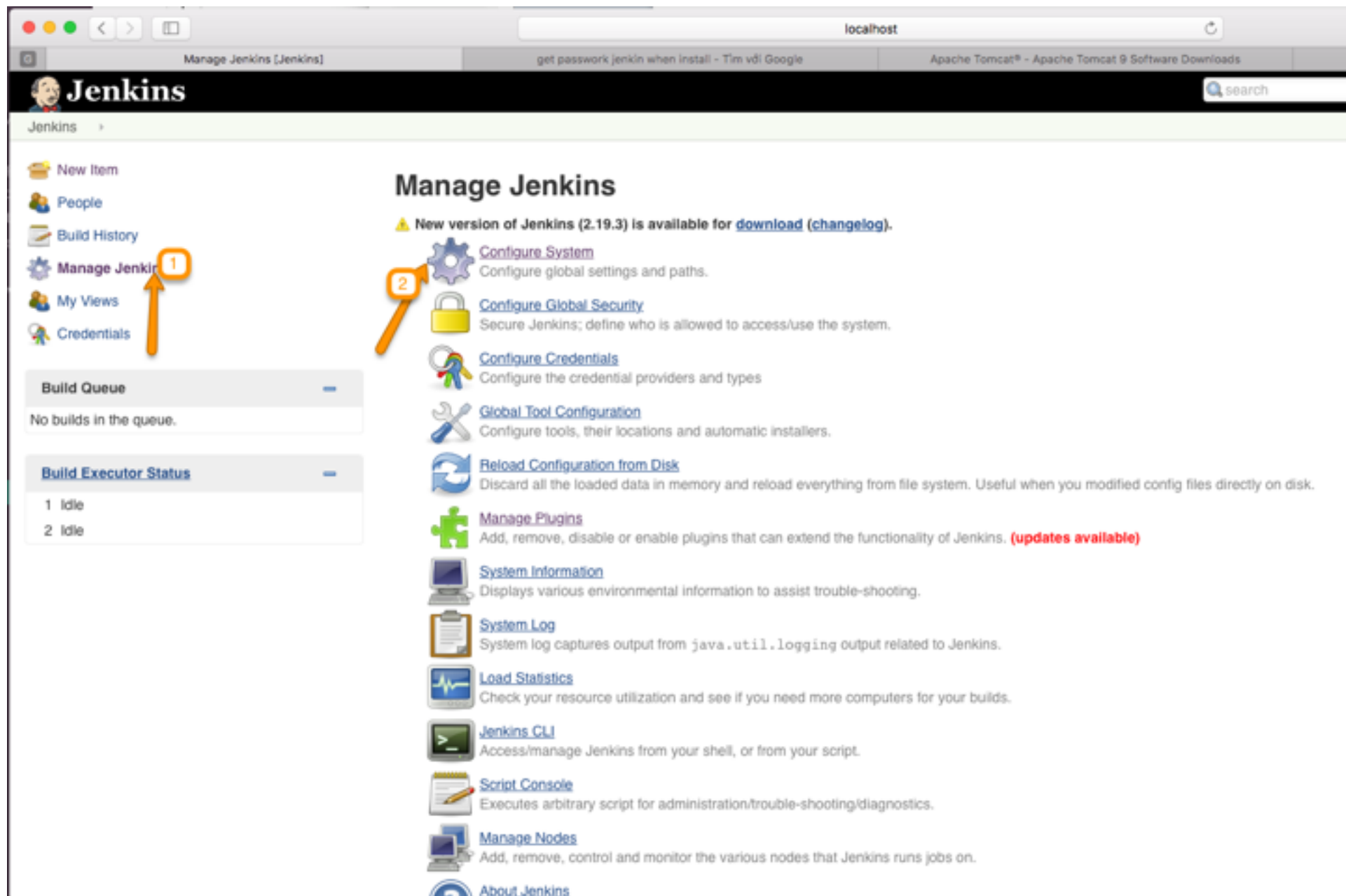
☐ List View
Shows items in a simple list format. You can choose which jobs

☐ My View
This view automatically displays all the jobs that the current us

OK

- Login in Jenkins

Set Up Maven in Jenkins



- 1 Click Manage Jenkins
- 2 Click Configure System

Set Up Maven in Jenkins

Maven Project Configuration

Global MAVEN_OPTS	<div><code>/Users/nguyenthihongthuy/Documents/apache-maven-3.3.9</code></div> <div>← Link maven folder</div>
Local Maven Repository	<div>Default (~/.m2/repository)</div>
# of executors	<div>2</div>
Labels	<div></div>
Usage	<div>Use this node as much as possible</div>
Quiet period	<div>5</div>
SCM checkout retry count	<div>0</div>
<input type="checkbox"/> Restrict project naming	

- 3 Copy Maven folder

Install Cucumber Report

The screenshot shows the Jenkins web interface. On the left sidebar, the 'Manage Jenkins' link is highlighted with an orange circle containing the number '1' and an arrow pointing to it. Below the sidebar, there are two sections: 'Build Queue' (showing 'No builds in the queue.') and 'Build Executor Status' (showing two 'Idle' executors). An orange circle containing the number '2' and an arrow points from the 'Build Executor Status' section to the 'Manage Plugins' link in the main content area. The main content area is titled 'Manage Jenkins' and contains a list of configuration options, each with an icon and a description. A yellow warning banner at the top of the main content area states: 'New version of Jenkins (2.19.3) is available for [download](#) ([changelog](#)).'

Jenkins

New Item
People
Build History
Manage Jenkins
My Views
Credentials

Build Queue
No builds in the queue.

Build Executor Status
1 Idle
2 Idle

Manage Jenkins

⚠ New version of Jenkins (2.19.3) is available for [download](#) ([changelog](#)).

- [Configure System](#)
Configure global settings and paths.
- [Configure Global Security](#)
Secure Jenkins; define who is allowed to access/use the system.
- [Configure Credentials](#)
Configure the credential providers and types
- [Global Tool Configuration](#)
Configure tools, their locations and automatic installers.
- [Reload Configuration from Disk](#)
Discard all the loaded data in memory and reload everything from
- [Manage Plugins](#)
Add, remove, disable or enable plugins that can extend the funct
- [System Information](#)
Displays various environmental information to assist trouble-shoc
- [System Log](#)
System log captures output from `java.util.logging` output r
- [Load Statistics](#)
Check your resource utilization and see if you need more compu
- [Jenkins CLI](#)
Access/manage Jenkins from your shell, or from your script.
- [Script Console](#)
Executes arbitrary script for administration/trouble-shooting/diagr
- [Manage Nodes](#)
Add, remove, control and monitor the various nodes that Jenkins

Install Cucumber Report

The screenshot shows the Jenkins Plugin Manager interface. The top navigation bar includes the Jenkins logo, a search bar, and the user name 'Thuy Nguyen' with a 'log out' link. The left sidebar contains links for 'Back to Dashboard' and 'Manage Jenkins'. The main content area displays the 'Available' tab for plugins. A search filter 'Cucumber' is applied. The following table lists the available plugins:

Install ↓	Name	Version
<input type="checkbox"/>	Cucumber Slack Notifier Plugin A plugin to send a summarised cucumber report to a slack channel.	0.8.3
<input type="checkbox"/>	bootstrapped-multi-test-results-report Allows you to have a pretty bootstrapped HTML report of the test results generated by the automated tests for Cucumber / JUnit / RSpec / TestNG. Join chat for more details about the plugin, or visit repo or page .	1.4.22
<input type="checkbox"/>	Cucumber Plugin run cucumber tests under jenkins CI	0.0.2

At the bottom, there are two buttons: 'Install without restart' and 'Download now and install after restart'. The 'Install without restart' button is highlighted with an orange arrow and the number 6. The 'Check now' button is also visible on the right.

Create a Project in Jenkins

The image shows the Jenkins 'Create a Project' interface with three numbered annotations:

- Annotation 1:** A box labeled 'Choose FreeStyle' with an arrow pointing to the 'Freestyle project' option.
- Annotation 2:** A box labeled 'Input project name' with an arrow pointing to the text input field containing 'BDDBasic'.
- Annotation 3:** A box labeled 'Click OK' with an arrow pointing to the 'OK' button at the bottom of the 'Freestyle project' selection.

The interface includes the following elements:

- Header:** Jenkins logo and navigation links (Jenkins > All >).
- Form Section:**
 - Enter an item name:** A text input field containing 'BDDBasic' with a 'Required field' note below it.
 - Project Type Selection:** A list of project types with icons and descriptions:
 - Freestyle project:** This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with any build used for something other than software build. (Highlighted with an orange border)
 - Maven project:** Build a maven project. Jenkins takes advantage of your POM files and drastically reduces the configuration.
 - Pipeline:** Orchestrates long-running activities that can span multiple build slaves. Suitable for building pipelines (1) and/or organizing complex activities that do not easily fit in free-style job type.
 - External Job:** This type of job allows you to record the execution of a process run outside Jenkins, even on a remote host that you can use Jenkins as a dashboard of your existing automation system.
 - Multi-configuration project:** Suitable for projects that need a large number of different configurations, such as testing on multiple environments, builds, etc.
 - Folder:** Creates a container that stores nested items in it. Useful for grouping things together. Unlike view, which creates a separate namespace, so you can have multiple things of the same name as long as they are in different namespaces.
 - GitHub Organization:** Scans a GitHub organization (or user account) for all repositories matching some defined markers.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom of the project type selection list.

Create a Project in Jenkins

The screenshot shows the Bitbucket interface for a repository named 'ZingPoll' by 'Thuy Nguyen'. The 'Overview' tab is active. A callout box with the text 'Get link in here' points to the repository's HTTPS URL: `https://thuynguyen_axon@bitbucket`. The repository details include:

Last updated	2016-11-01	1 Branch	0 Tags
Language	—	0 Forks	1 Watcher
Access level	Admin		

Below the details, there is a message: **THERE ISN'T A README YET** with the text 'Create one and tell people where to start and how to contribute.' and a button 'Create a README'.

On the right, there is a section 'Invite users to this repo' with a 'Send Invitation' button and an icon for inviting users. Below that is 'Recent activity' showing two commits:

- 1 commit: Pushed to thuynguyen_axon/zingpoll | `ff198d3` path gecko driver | Thuy Nguyen · 2016-11-01
- 1 commit: Pushed to thuynguyen_axon/zingpoll | `664ae7b` empty message | Thuy Nguyen · 2016-11-01

Create a Project in Jenkins

The screenshot shows the 'Source Code Management' configuration page in Jenkins. The 'Git' option is selected under 'Source Code Management'. The 'Repositories' section contains a single repository configuration. An orange arrow labeled '1' points to the 'Repository URL' field, which contains 'https://thuynguyen_axon@bitbucket.org/thuynguyen_axon/zingpoll.git'. Another orange arrow labeled '2' points to the 'Credentials' dropdown, which shows 'thuy.nguyen@axonactive.vn/*****'. A third orange arrow labeled '3' points to the 'Branch Specifier' field, which contains '*/master'. The 'Branch Specifier' field is also labeled 'Branch' in an orange box. The 'Repository browser' is set to '(Auto)'. The 'Additional Behaviours' section has an 'Add' button. The 'Add Repository' button is at the bottom right of the repository configuration section.

Source Code Management

☐ None
☒ Git

Repositories

Repository URL:

Credentials:

Branches to build

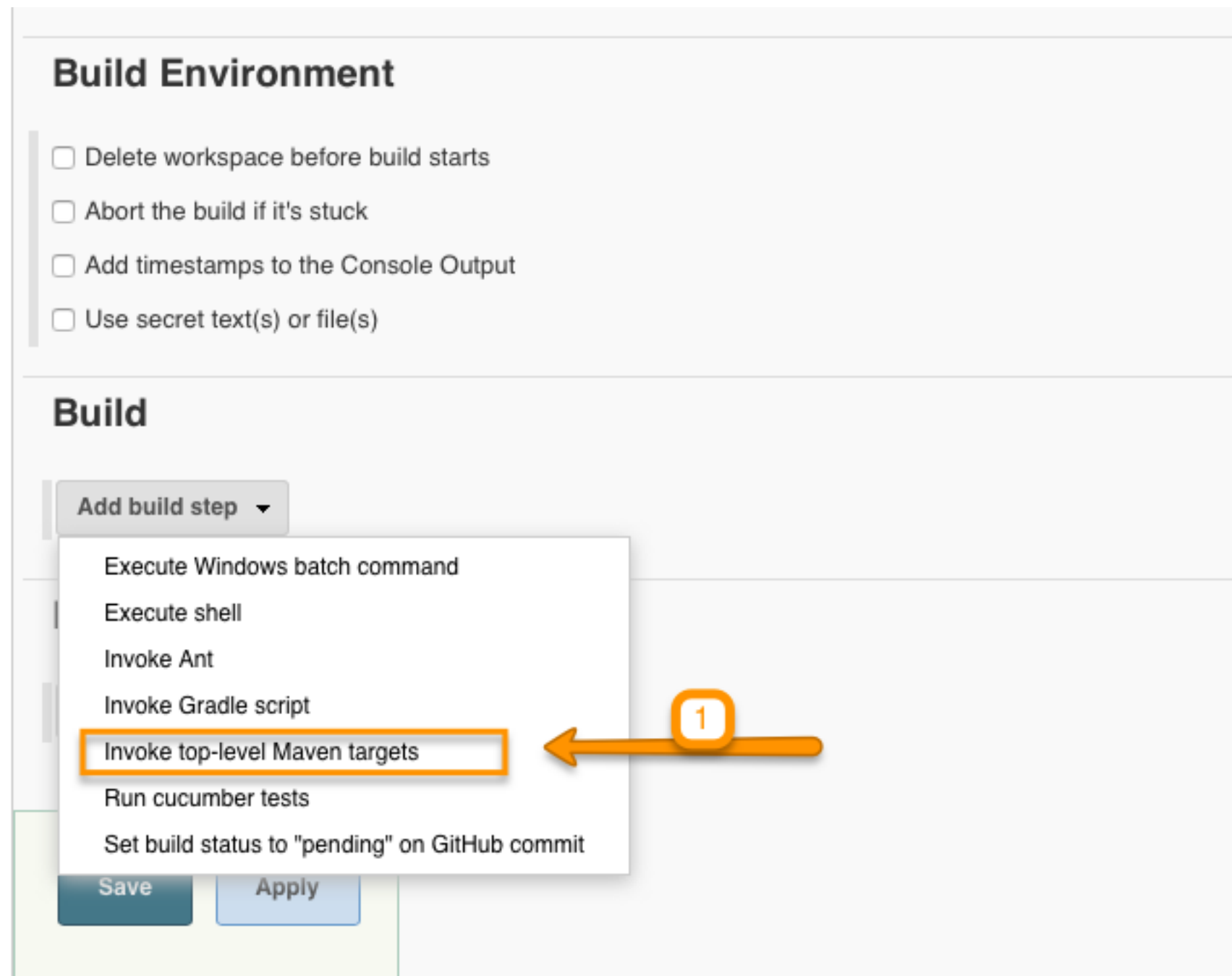
Branch Specifier (blank for 'any'):

Repository browser:

Additional Behaviours:

- Set up Source Codes

Create a Project in Jenkins



- Set up Maven Build for Project

Create a Project in Jenkins

Build

Invoke top-level Maven targets

Goals

clean install

2

Advanced...

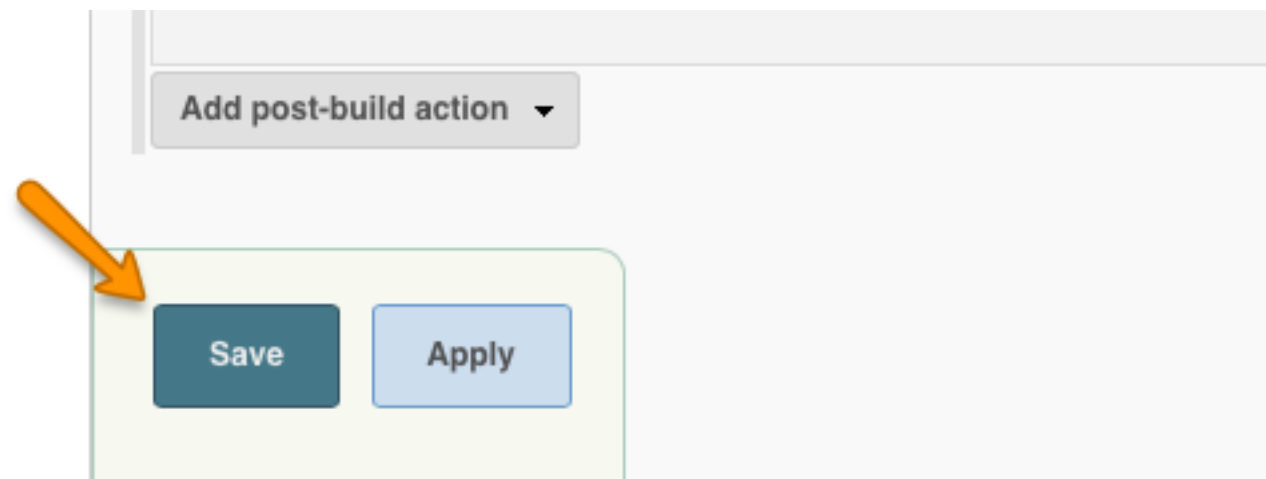
Add build step ▼

Create a Project in Jenkins

The screenshot shows the 'Build Environment' configuration page in Jenkins. On the left, there are two unchecked checkboxes: 'Delete workspace before build starts' and 'Abort the build if it's stuck'. Below these is a dropdown menu labeled 'Add post-build action'. The dropdown menu is open, displaying a list of post-build actions. The action 'Cucumber reports' is highlighted with an orange border. Other actions in the list include 'Aggregate downstream test results', 'Archive the artifacts', 'Build other projects', 'Cucumber Trend Report', 'Generate Cucumber performance reports', 'Publish JUnit test result report', 'Publish Javadoc', 'Record fingerprints of files to track usage', 'Git Publisher', 'E-mail Notification', 'Editable Email Notification', 'Set GitHub commit status (universal)', 'Set build status on GitHub commit [deprecated]', and 'Delete workspace when build is done'. To the right of the dropdown menu, there is a red 'X' icon, a blue question mark icon, a search input field, and a button labeled 'Advanced...'.

- Set up Cucumber Report After finishing Maven build

Create a Project in Jenkins



- Click Save

Create a Project in Jenkins

The screenshot shows the Jenkins web interface for a project named 'BDDBasic'. The top navigation bar includes the Jenkins logo and the breadcrumb 'Jenkins > BDDBasic >'. On the left sidebar, there are several action links: 'Back to Dashboard' (with an upward arrow icon), 'Status' (with a magnifying glass icon), 'Changes' (with a notepad icon), 'Workspace' (with a folder icon), 'Build Now' (with a play button icon), 'Delete Project' (with a red prohibition sign icon), 'Configure' (with a gear icon), and 'Move' (with a dolly icon). An orange callout box with the text 'Build Project in the first time' has an arrow pointing to the 'Build Now' button. To the right of the sidebar, the main content area is titled 'Project BDDBasic' and contains links for 'Workspace' (with a folder icon) and 'Recent Changes' (with a notepad icon). Below this, there is a 'Permalinks' section. At the bottom left, there is a 'Build History' section with a search bar containing the text 'find' and an 'x' icon, and two RSS feed links: 'RSS for all' and 'RSS for failures'.

Jenkins

Jenkins > BDDBasic >

[Back to Dashboard](#)

[Status](#)

[Changes](#)

[Workspace](#)

[Build Now](#)

[Delete Project](#)

[Configure](#)

[Move](#)

Project BDDBasic

[Workspace](#)

[Recent Changes](#)

Permalinks

Build History [trend](#)

find x

[RSS for all](#) [RSS for failures](#)

Create a Project in Jenkins

The screenshot shows the Jenkins web interface for a project named 'ZingPollDemo'. The top navigation bar includes 'Jenkins' and 'ZingPollDemo'. On the left, a sidebar contains links: 'Back to Dashboard' (green arrow), 'Status' (magnifying glass), 'Changes' (notepad), 'Workspace' (folder), 'Build Now' (play button), 'Delete Project' (red circle with slash), 'Configure' (gear), 'Cucumber reports' (green speech bubble), and 'Move' (hand icon). The main content area is titled 'Project ZingPollDemo' and features three links with icons: 'Cucumber reports' (green speech bubble), 'Workspace' (blue folder), and 'Recent Changes' (notepad with pencil). Below these is a 'Permalinks' section with a bulleted list of links to specific build events. At the bottom left, a 'Build History' section is partially visible, showing a search bar and a table of build records.

Jenkins > ZingPollDemo

Project ZingPollDemo

[Back to Dashboard](#)

[Status](#)

[Changes](#)

[Workspace](#)

[Build Now](#)

[Delete Project](#)

[Configure](#)

[Cucumber reports](#)

[Move](#)

[Cucumber reports](#)

[Workspace](#)

[Recent Changes](#)

Permalinks

- [Last build \(#8\), 1 min 53 sec ago](#)
- [Last stable build \(#8\), 1 min 53 sec ago](#)
- [Last successful build \(#8\), 1 min 53 sec ago](#)
- [Last failed build \(#3\), 21 days ago](#)

Build History [trend](#)

find x

#	Time	Status	Duration	Build
40	11:00:00	Success	10:00	11

THANK YOU !