

Pipeline Using Blue Ocean

~Neha Singh

Blue Ocean: Blue Ocean rethinks the user experience of Jenkins. Designed from the ground up for Jenkins Pipeline, but still compatible with freestyle jobs, Blue Ocean reduces clutter and increases clarity for every member of the team.

Features:

- Sophisticated visualizations of continuous delivery (CD) Pipelines
- Pipeline editor
- Personalization
- Pinpoint precision
- Native integration for branch and pull requests

1. Make sure your Jenkins is up and running.

```
C:\Users\Neha\Downloads>java -jar jenkins.war
Running from: C:\Users\Neha\Downloads\jenkins.war
webroot: $user.home/.jenkins
2020-09-18 02:56:05.893+0000 [id=1] INFO org.eclipse.jetty.util.log.Log#i
2020-09-18 02:56:06.372+0000 [id=1] INFO winstone.Logger#logInternal: Beg
2020-09-18 02:56:06.598+0000 [id=1] WARNING o.e.j.s.handler.ContextHandler#s
2020-09-18 02:56:06.793+0000 [id=1] INFO org.eclipse.jetty.server.Server#
2b7bb13ef5a92a927634b0d; jvm 1.8.0_231-b11
2020-09-18 02:56:12.019+0000 [id=1] INFO o.e.j.w.StandardDescriptorProces
et
2020-09-18 02:56:12.639+0000 [id=1] INFO o.e.j.s.s.DefaultSessionIdManage
2020-09-18 02:56:12.639+0000 [id=1] INFO o.e.j.s.s.DefaultSessionIdManage
2020-09-18 02:56:12.703+0000 [id=1] INFO o.e.j.server.session.HouseKeeper
2020-09-18 02:56:15.324+0000 [id=1] INFO hudson.WebAppMain#contextInitial
2020-09-18 02:56:15.989+0000 [id=1] INFO o.e.j.s.handler.ContextHandler#d
BLE}{C:\Users\Neha\.jenkins\war}
```

2. Move to left side, Manage Plugins

Jenkins search [?] NEHA SINGH log out

Jenkins

- New Item
- People
- Build History
- Project Relationship
- Check File Fingerprint
- Manage Jenkins
- My Views
- Open Blue Ocean
- Lockable Resources
- New View

[add description](#)

S	W	Name	Last Success	Last Failure	Last Duration	Fav
		BlueOcean	2 days 20 hr - log	N/A	3.6 sec	
		CI_CD_LAB1	1 mo 0 days - #2	1 mo 0 days - #1	35 sec	
		CI_CD_SonarQube	24 days - #3	24 days - #2	1 min 43 sec	
		Ocean	2 days 20 hr - log	N/A	3.5 sec	
		test2_Jenkinsfile	N/A	23 days - #2	33 sec	
		test_jenkinsfile	23 days - #2	N/A	24 sec	

Icon: [S](#) [M](#) [L](#)

Build Queue [-](#)

No builds in the queue.

Legend Atom feed for all Atom feed for failures Atom feed for just latest builds

3. Click on Manage Plugins



The Jenkins System Configuration page is displayed. It features a header with the Jenkins logo and a breadcrumb trail. The main content is organized into two sections: System Configuration and Security. The System Configuration section includes links to Configure System, Global Tool Configuration, Manage Plugins, Manage Nodes and Clouds, and Install as Windows Service. The Security section includes links to Configure Global Security, Manage Credentials, and Configure Credential Providers. The Manage Plugins link is highlighted with a green puzzle piece icon and a red alert icon indicating updates are available.

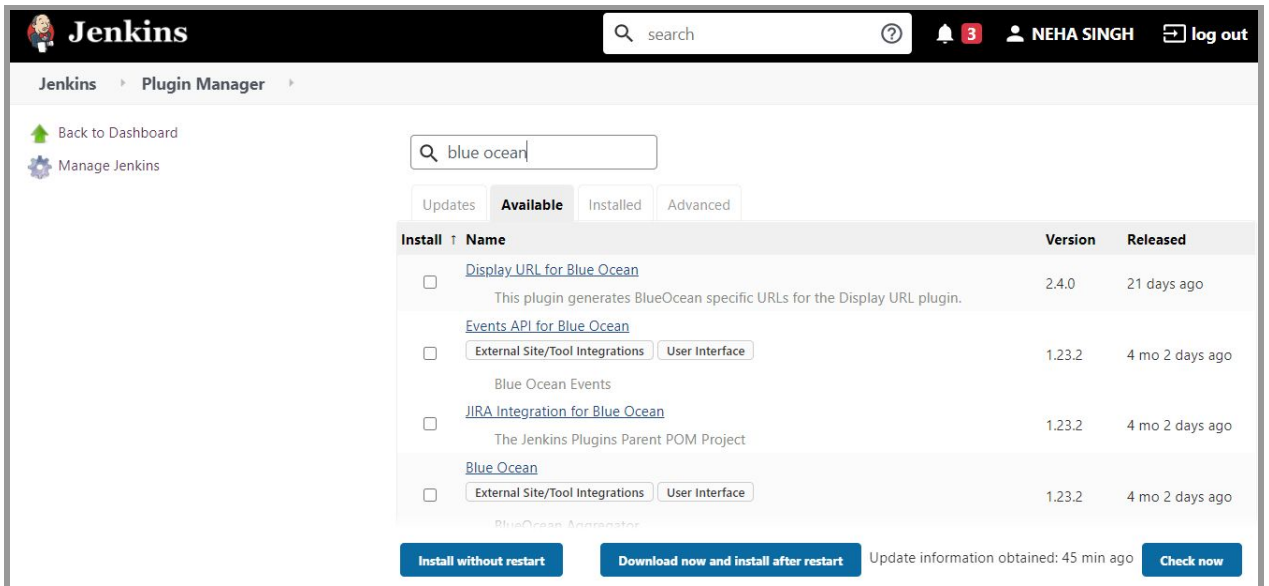
System Configuration

- Configure System**: Configure global settings and paths.
- Global Tool Configuration**: Configure tools, their locations and automatic installers.
- Manage Plugins**: Add, remove, disable or enable plugins that can extend the functionality of Jenkins. ▲ There are updates available
- Manage Nodes and Clouds**: Add, remove, control and monitor the various nodes that Jenkins runs jobs on.
- Install as Windows Service**: Installs Jenkins as a Windows service to this system, so that Jenkins starts automatically when the machine boots.

Security

- Configure Global Security**: Secure Jenkins; define who is allowed to access/use the system.
- Manage Credentials**: Configure credentials
- Configure Credential Providers**: Configure the credential providers and types

4. Install a plugin in Jenkins for Blue Ocean



The Jenkins Plugin Manager page is displayed. The header shows the Jenkins logo, a search bar, and user information (NEHA SINGH). The breadcrumb trail indicates the current location is Jenkins > Plugin Manager. The left sidebar contains links to Back to Dashboard and Manage Jenkins. The main content area shows a search for 'blue ocean' with tabs for Updates, Available, Installed, and Advanced. A table lists available plugins, including Display URL for Blue Ocean, Events API for Blue Ocean, External Site/Tool Integrations, JIRA Integration for Blue Ocean, and Blue Ocean. The Blue Ocean plugin is highlighted. At the bottom, there are buttons for Install without restart, Download now and install after restart, and Check now. The update information is 45 min ago.

Jenkins Plugin Manager

Back to Dashboard
Manage Jenkins

Search: blue ocean

Updates Available Installed Advanced

Install	Name	Version	Released
<input type="checkbox"/>	Display URL for Blue Ocean This plugin generates BlueOcean specific URLs for the Display URL plugin.	2.4.0	21 days ago
<input type="checkbox"/>	Events API for Blue Ocean External Site/Tool Integrations User Interface Blue Ocean Events	1.23.2	4 mo 2 days ago
<input type="checkbox"/>	JIRA Integration for Blue Ocean The Jenkins Plugins Parent POM Project	1.23.2	4 mo 2 days ago
<input type="checkbox"/>	Blue Ocean External Site/Tool Integrations User Interface <i>BlueOcean Administrator</i>	1.23.2	4 mo 2 days ago

[Install without restart](#) [Download now and install after restart](#) Update information obtained: 45 min ago [Check now](#)

5. Make new GitHub Repository for maven project with pom.xml in the main folder

9/15/2020BlueOcean/Jenkinsfile at master · Nehasingh1300/BlueOcean


📁 Nehasingh1300 / BlueOcean

<> Code! Issues🔗 Pull requests▶ Actions📁 Projects📖 Wiki🛡 Security|

🔗 master ▾

...

BlueOcean / Jenkinsfile

Nehasingh1300 Update Jenkinsfile

🕒 History

👤 1 contributor

RawBlame

📄 ✎ 🗑

20 lines (20 sloc) 304 Bytes

```
1 pipeline{
2   agent any
3   stages{
4     stage('Build'){
5       steps{
6         echo 'Build Stage'
7       }
8     }
9     stage('Test'){
10      steps{
11        echo 'mvn Test'
12      }
13    }
14    stage('Clean'){
15      steps{
16        echo 'Clean Stage'
17      }
18    }
19  }
20 }
```

<https://github.com/Nehasingh1300/BlueOcean/blob/master/Jenkinsfile>

1/1

6. Upload Jenkinsfile

```
p
i
p
e
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n
e
{

    agent any

    stages{

        stage('Build'){
            steps{

                echo
                'Build Stage'
            }
        }


        stage('Test'){
            steps{

                echo 'mvn
                Test'
            }
        }

        stage('Clean'){
            steps{

                echo
                'Clean Stage'
            }
        }
    }
}
```

7. Create Blue Ocean Pipeline with GitHub.

 **Jenkins**

search ?

NEHA SINGH log out

Jenkins

New Item

People

Build History

Project Relationship

Check File Fingerprint

Manage Jenkins

























My Views

Open Blue Ocean




Lockable Resources

New View

add description

S	W	Name ↓	Last Success	Last Failure	Last Duration	Fav
		BlueOcean	27 min - log	N/A	3.6 sec	 
		CI_CD_LAB1	27 days - #2	27 days - #1	35 sec	 
		CI_CD_SonarQube	21 days - #3	21 days - #2	1 min 43 sec	 
		Ocean	18 min - log	N/A	3.5 sec	 
		test2_Jenkinsfile	N/A	21 days - #2	33 sec	 
		test_jenkinsfile	21 days - #2	N/A	24 sec	 

Icon: [S](#) [M](#) [L](#)

[Legend](#)  Atom feed for all  Atom feed for failures  Atom feed for just latest builds

Build Queue

No builds in the queue.

Create Pipeline

Classic Item Creation



Where do you store your code?



Bitbucket Cloud



Bitbucket Server



GitHub



GitHub Enterprise



Git



Which organization does the repository belong to?



DevOpsatUPES



Nehasingh1300



csdv1003



stormsinbrewing



Choose a repository

Loaded 74 repositories



Search...

AUTOMATION-using-SHELL-SCRIPTING

badges

BlueOcean

9/15/2020

Jenkins

Certificate-Generator

CICD

Create Pipeline



Naming conflict

Success! 'OCEANBLUE' is available.

OCEANBLUE

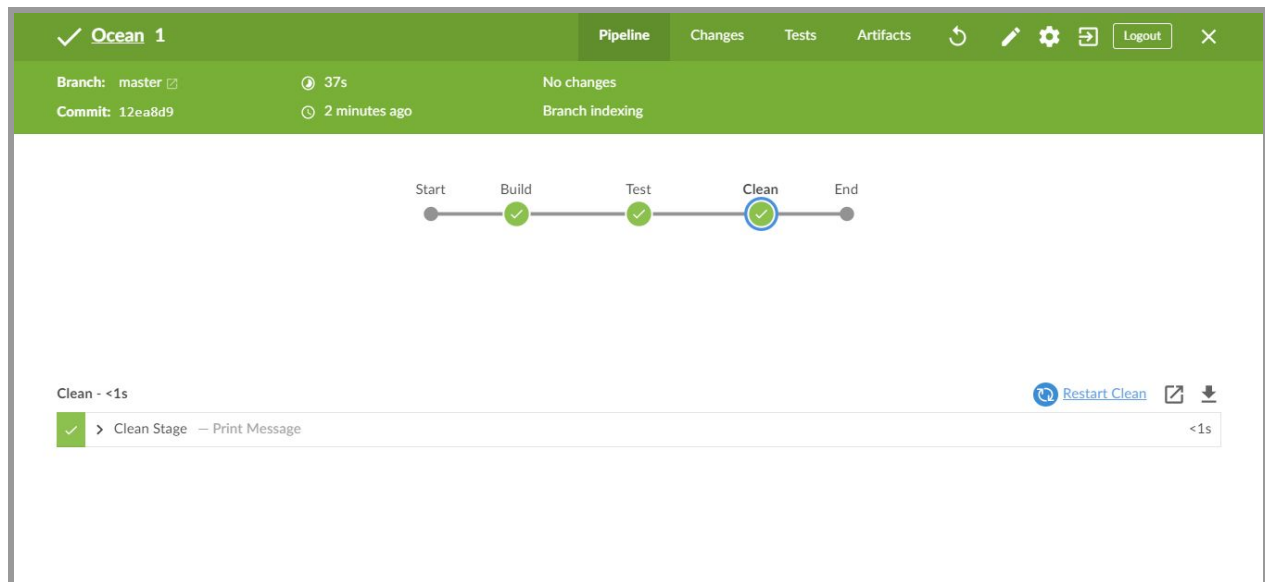
Save



Completed

1.23.2 · Core 2.235.5 · 6a14f41 · 16th May 2020 03:07 AM

8. Now, you can see a screen where all your stages are successfully implemented.



You can also check my video on [YouTube for the same BlueOcean Tutorial.](#)

That's all for this session.