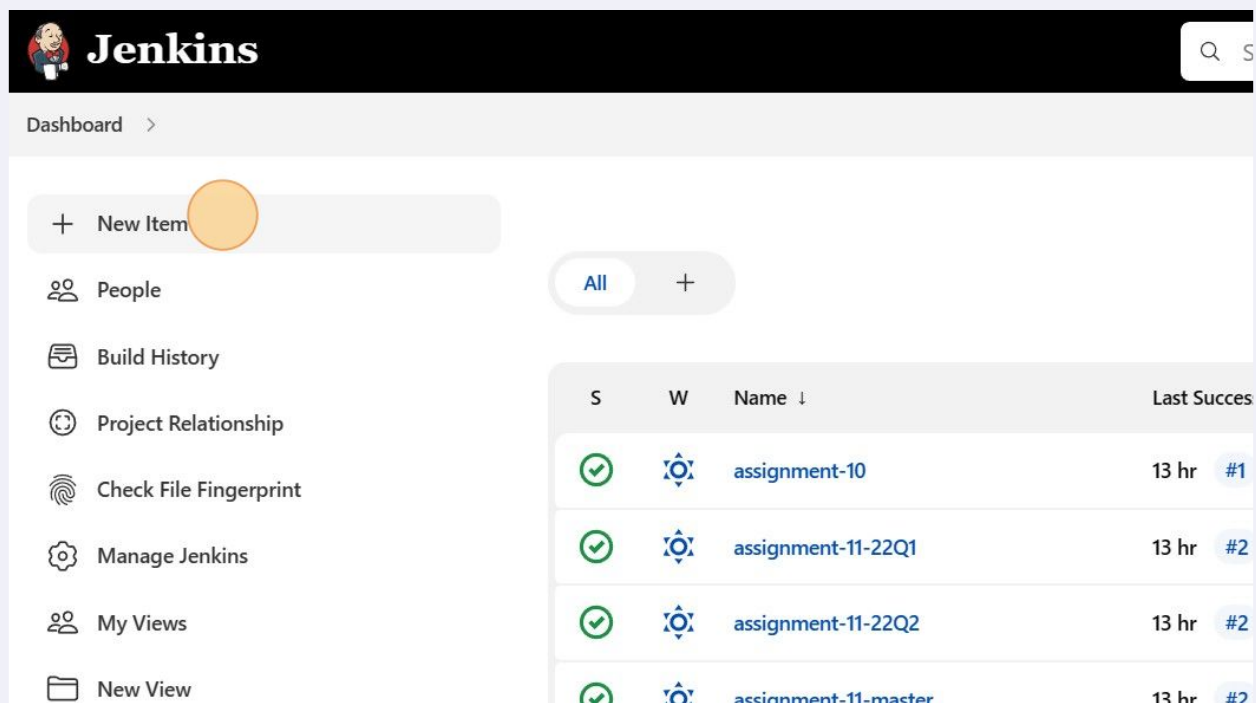


# Workflow

checkout and compile on master and deploy it to slave using Declarative pipeline

1 Navigate to [13.127.190.171:8080/jenkins](http://13.127.190.171:8080/jenkins)

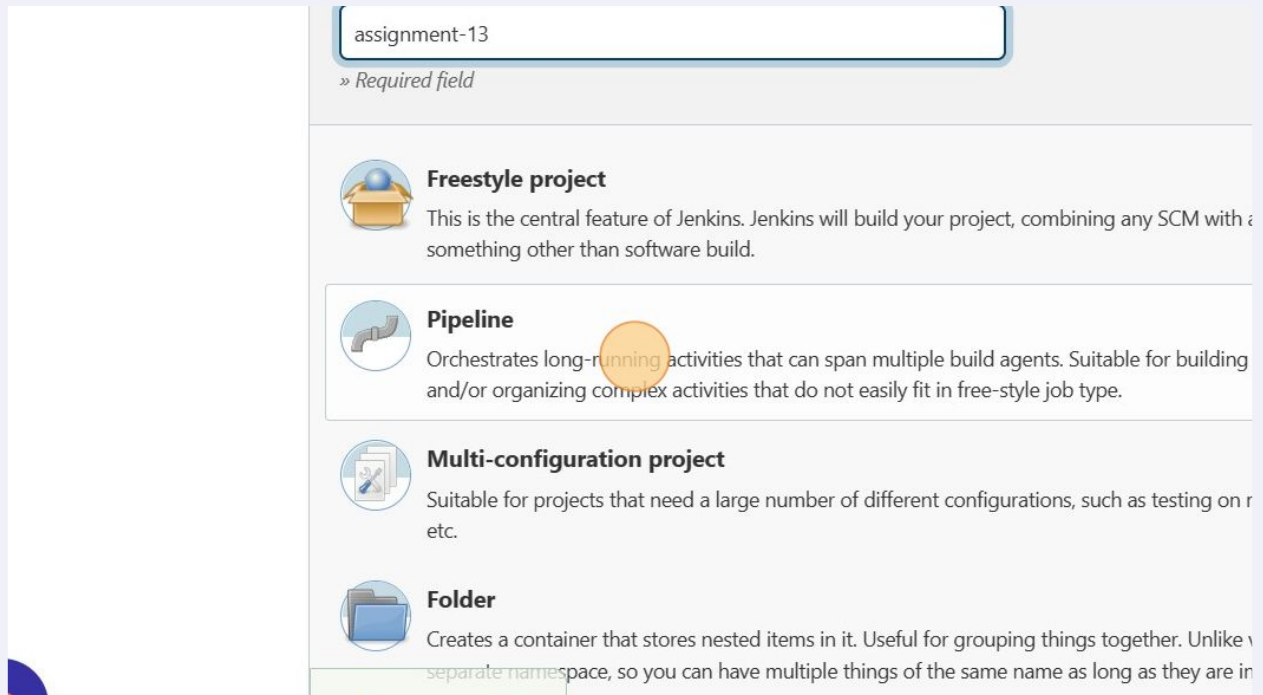
2 Click "New Item"



3 Type "as13"

4

Click "Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or o..."



assignment-13

» Required field

**Freestyle project**  
This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with something other than software build.

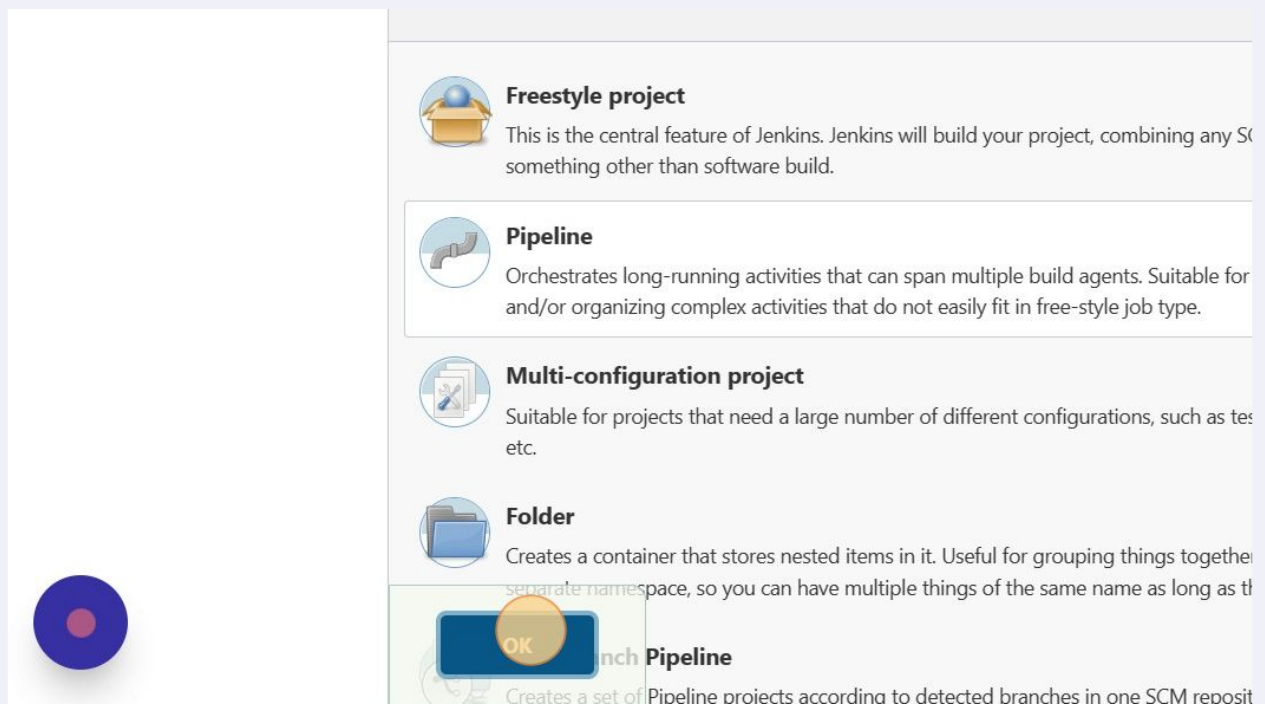
**Pipeline**  
Orchestrates long-running activities that can span multiple build agents. Suitable for building and/or organizing complex activities that do not easily fit in free-style job type.

**Multi-configuration project**  
Suitable for projects that need a large number of different configurations, such as testing on etc.

**Folder**  
Creates a container that stores nested items in it. Useful for grouping things together. Unlike separate namespace, so you can have multiple things of the same name as long as they are in

5

Click "OK"



**Freestyle project**  
This is the central feature of Jenkins. Jenkins will build your project, combining any SC something other than software build.

**Pipeline**  
Orchestrates long-running activities that can span multiple build agents. Suitable for and/or organizing complex activities that do not easily fit in free-style job type.

**Multi-configuration project**  
Suitable for projects that need a large number of different configurations, such as tes etc.

**Folder**  
Creates a container that stores nested items in it. Useful for grouping things together separate namespace, so you can have multiple things of the same name as long as th

**OK**

**Branch Pipeline**  
Creates a set of Pipeline projects according to detected branches in one SCM reposi

6 Click this dropdown.

assignment-13 >

General Build Triggers Advanced Project Options **Pipeline**

**Pipeline**

Definition

Pipeline script

Script ?

1

7 Click this dropdown.

**Pipeline**

Definition

Pipeline script from SCM

SCM ?

None

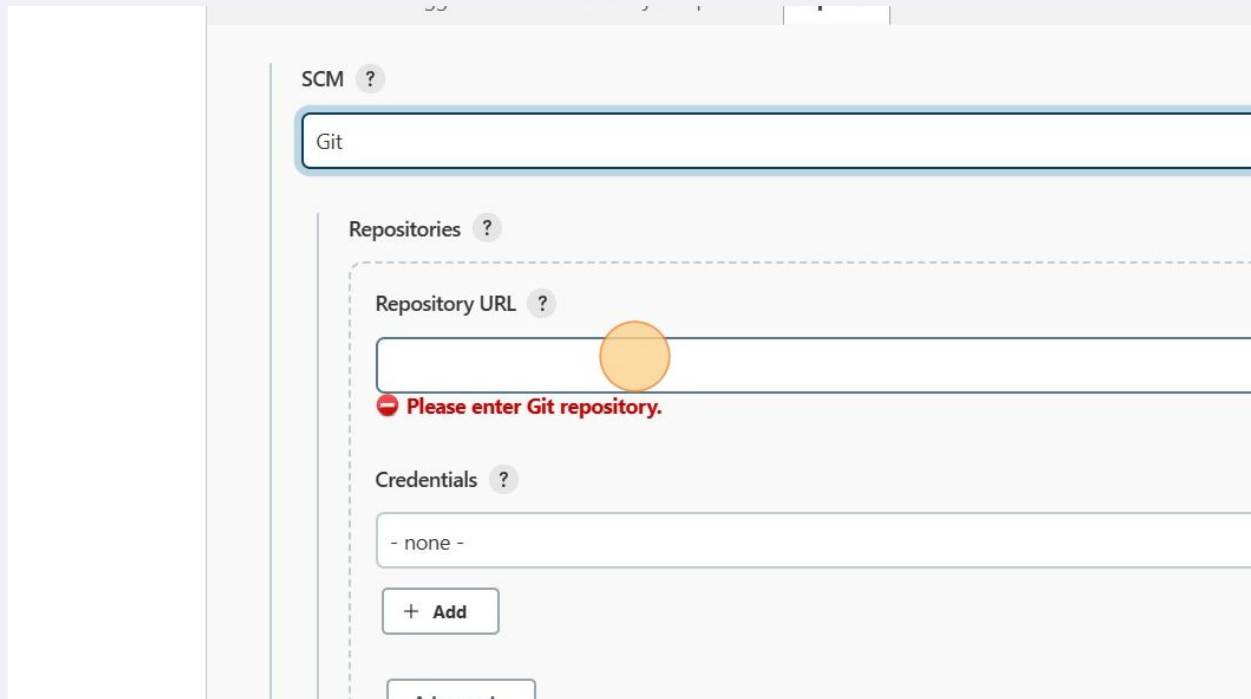
Script Path ?

Jenkinsfile

☒ Lightweight checkout ?

[Pipeline Syntax](#)

8 Click this text field.



The screenshot shows the Jenkins configuration page for a new project. The 'SCM' section is expanded, and 'Git' is selected. Below it, the 'Repositories' section is also expanded. The 'Repository URL' field is highlighted with an orange circle. A red error message, 'Please enter Git repository.', is displayed below the URL field. The 'Credentials' section shows '- none -' as the selected credential, with an '+ Add' button below it.

9 Switch to tab "game-of-life/Jenkinsfile at master · sayalip848/game-of-life"

## 10 Click "Code"

This screenshot shows the GitHub repository page for 'sayalip848 / game-of-life'. The repository is public and forked from 'Shantanumajan6/game-of-life'. The 'Code' button is highlighted with an orange circle. Below the repository name, there are tabs for 'Pull requests', 'Actions', 'Projects', 'Wiki', 'Security', 'Insights', and 'Settings'. The 'Code' button is located in the top left of the repository content area. Below the 'Code' button, there is a dropdown menu for 'master' and a link to 'game-of-life / Jenkinsfile'. The file 'Jenkinsfile' is shown with 25 lines (25 sloc) and 613 Bytes. The code content is visible, showing a pipeline definition.

Search or jump to... Pull requests Issues Codespaces Marketplace Explore

sayalip848 / game-of-life Public  
forked from Shantanumajan6/game-of-life

<> Code Pull requests Actions Projects Wiki Security Insights Settings

master game-of-life / Jenkinsfile

sayalip848 Update Jenkinsfile ...

1 contributor

25 lines (25 sloc) | 613 Bytes

```
1 pipeline {  
2   agent {
```

## 11 Click "Code"

This screenshot shows the GitHub repository page for 'Jenkins: The Definitive Guide'. The repository is public and has 18.4k forks. The 'Code' button is highlighted with an orange circle. Below the repository name, there are tabs for 'Pull requests', 'Actions', 'Projects', 'Wiki', 'Security', 'Insights', and 'Settings'. The 'Code' button is located in the top left of the repository content area. Below the 'Code' button, there is a dropdown menu for 'master' and a link to 'Jenkinsfile'. The file 'Jenkinsfile' is shown with 25 lines (25 sloc) and 613 Bytes. The code content is visible, showing a pipeline definition.

Marketplace Explore

Pin Watch 0 Fork 18.4k Star 0

ity Insights Settings

Go to file Add file <> Code

Contribute Sync fork

563431a 3 minutes ago 439 commits

file 6 years ago 10 years ago

About

Demo application for the 'Jenkins: The Definitive Guide' book

[www.wakaleo.com/books/jenkins-the-de...](http://www.wakaleo.com/books/jenkins-the-de...)

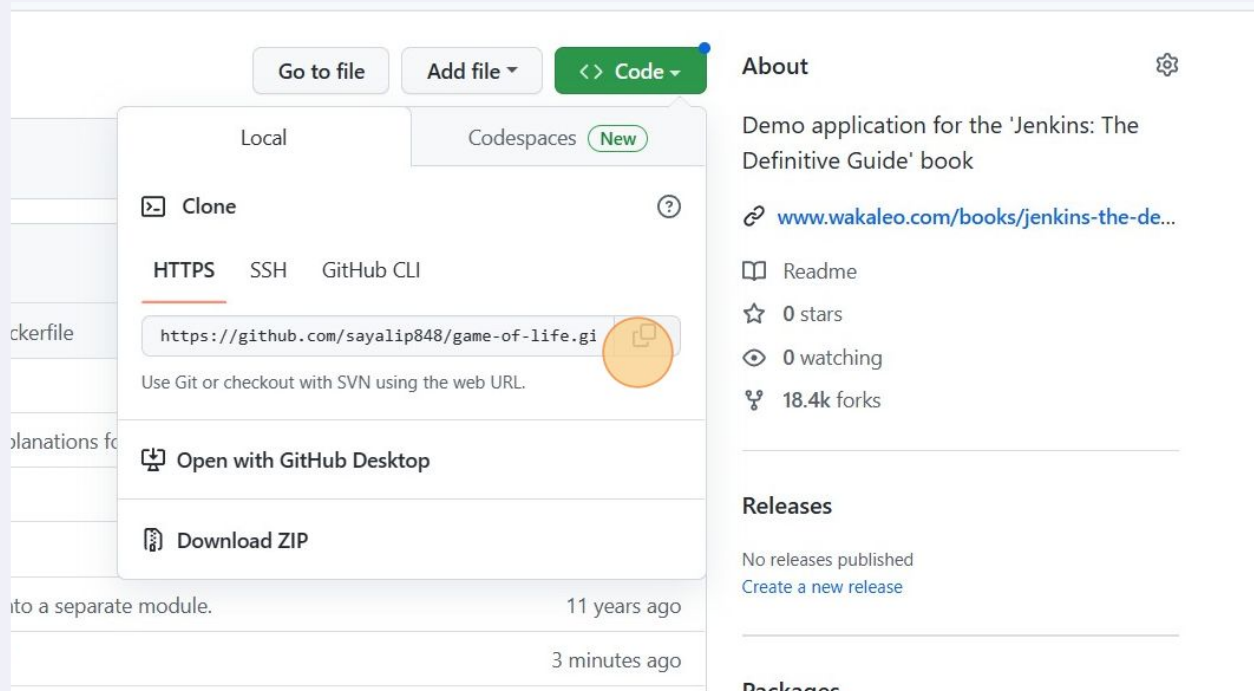
Readme

0 stars

0 watching

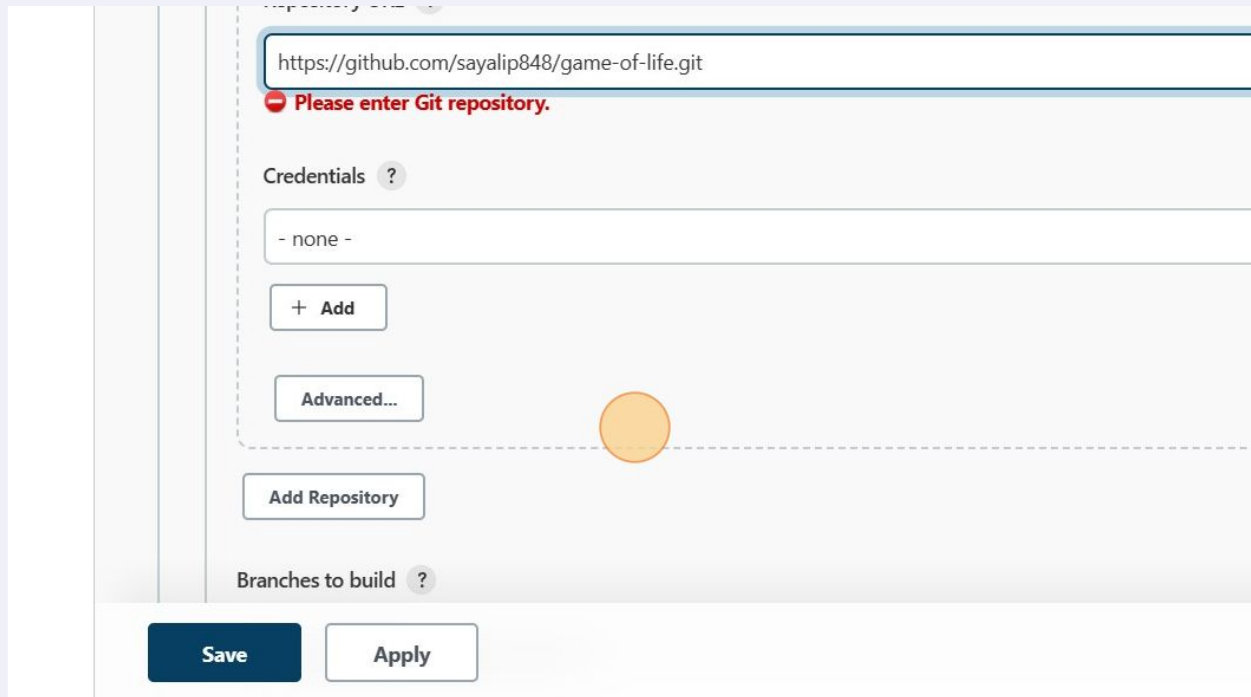
18.4k forks

## 12 Click "Copy to clipboard"



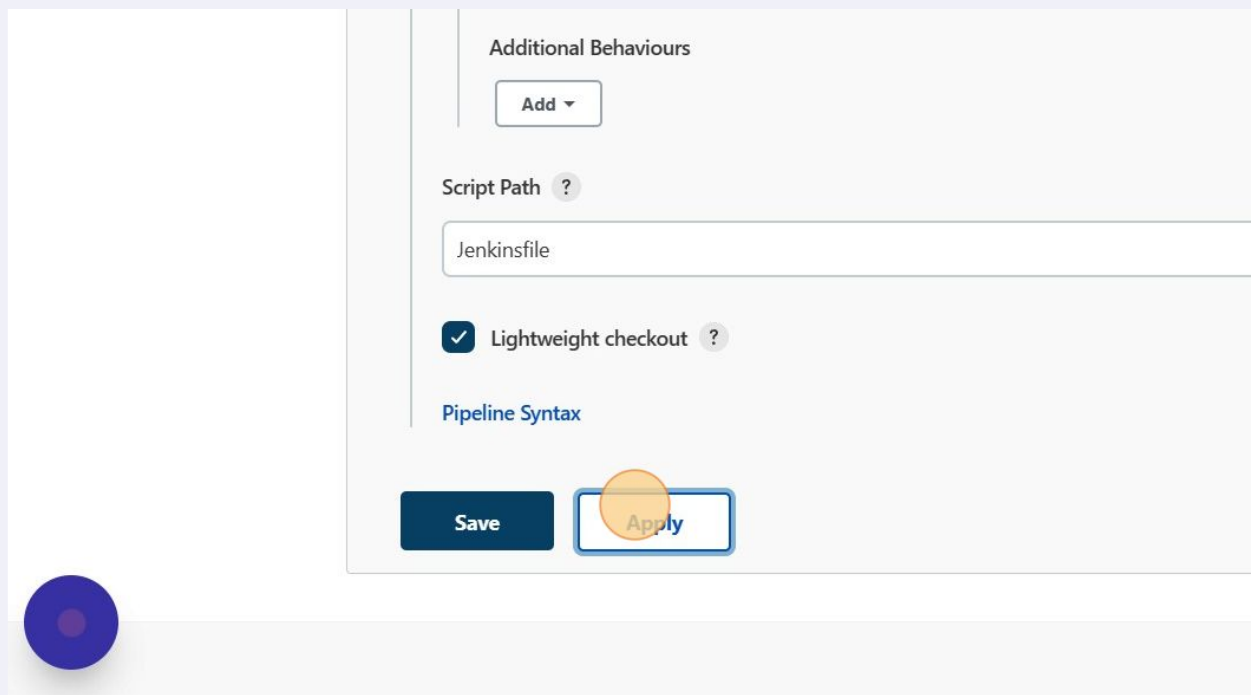
## 13 Press [[ctrl]] + [[v]]

14 Click here.



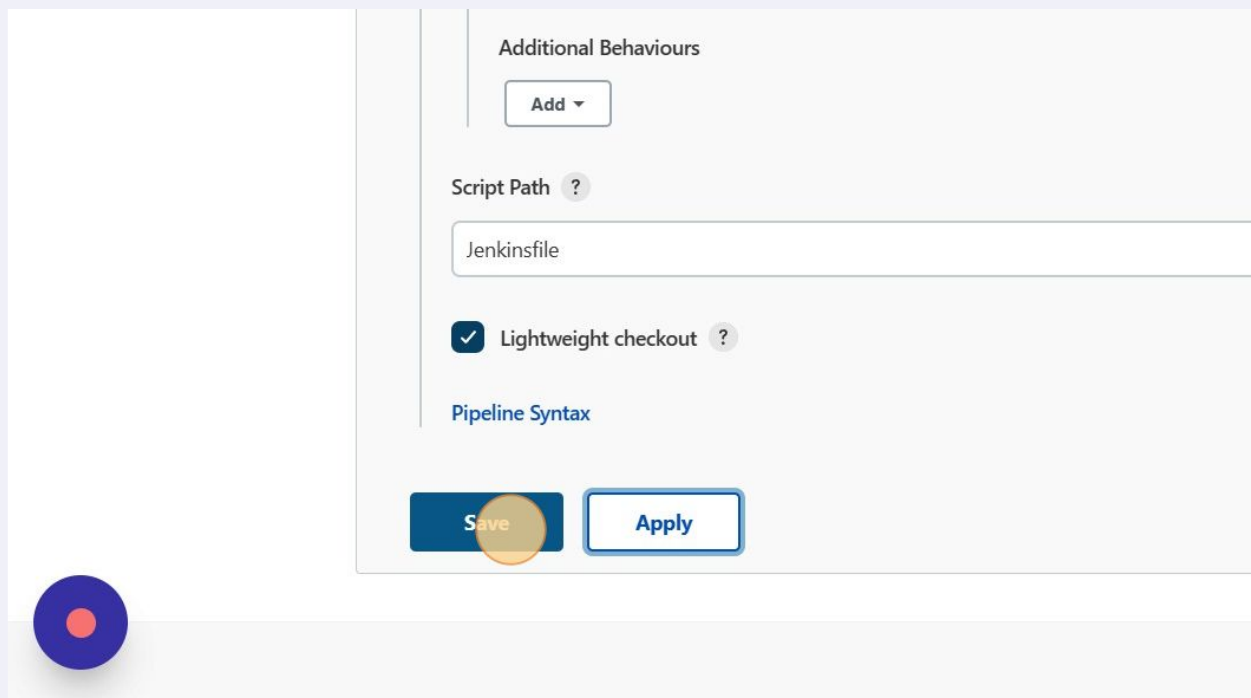
A screenshot of the Jenkins 'Add Repository' dialog. At the top, a text input field contains the URL 'https://github.com/sayalip848/game-of-life.git'. Below it, a red error message with a minus icon reads 'Please enter Git repository.' The 'Credentials' section shows a dropdown menu with '- none -' selected, a '+ Add' button, and an 'Advanced...' button. An orange circle highlights the 'Advanced...' button. At the bottom of the dialog are 'Save' and 'Apply' buttons.

15 Click "Apply"



A screenshot of the Jenkins 'Additional Behaviours' section. It features an 'Add' button with a dropdown arrow. Below is the 'Script Path' field containing 'Jenkinsfile'. The 'Lightweight checkout' checkbox is checked. A blue link for 'Pipeline Syntax' is visible. At the bottom, 'Save' and 'Apply' buttons are shown, with an orange circle highlighting the 'Apply' button. A large blue circle is present in the bottom-left corner of the page.

## 16 Click "Save"



A screenshot of the Jenkins Pipeline configuration page. The page is divided into two main sections. The left section is a sidebar with a blue circular icon at the bottom. The right section contains the configuration options. At the top, there is a section titled "Additional Behaviours" with an "Add" button. Below this is a "Script Path" field with a question mark icon, containing the text "Jenkinsfile". Underneath is a checkbox labeled "Lightweight checkout" with a question mark icon, which is checked. At the bottom of the configuration section, there are two buttons: "Save" (highlighted with a yellow circle) and "Apply".

Additional Behaviours

Add ▾

Script Path ?

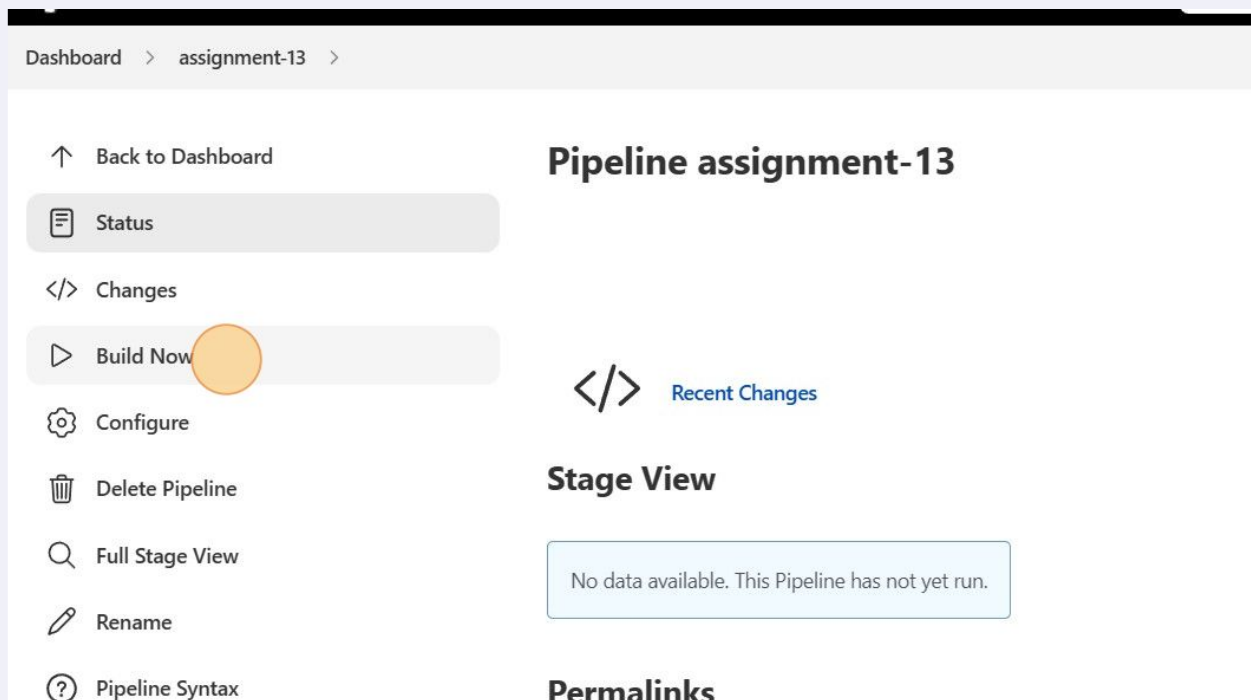
Jenkinsfile

☒ Lightweight checkout ?

Pipeline Syntax

Save Apply

## 17 Click "Build Now"



A screenshot of the Jenkins Pipeline assignment page. The page has a header with "Dashboard" and "assignment-13". On the left, there is a sidebar with several options: "Back to Dashboard", "Status", "Changes", "Build Now" (highlighted with a yellow circle), "Configure", "Delete Pipeline", "Full Stage View", "Rename", and "Pipeline Syntax". The main content area is titled "Pipeline assignment-13". Below the title, there is a "Recent Changes" section with a code icon. Underneath is a "Stage View" section with a message box that says "No data available. This Pipeline has not yet run." At the bottom, there is a "Permalinks" section.

Dashboard > assignment-13 >

↑ Back to Dashboard

📄 Status

</> Changes

▶ Build Now

⚙️ Configure

🗑️ Delete Pipeline

🔍 Full Stage View

✎ Rename

❓ Pipeline Syntax

### Pipeline assignment-13

</> Recent Changes

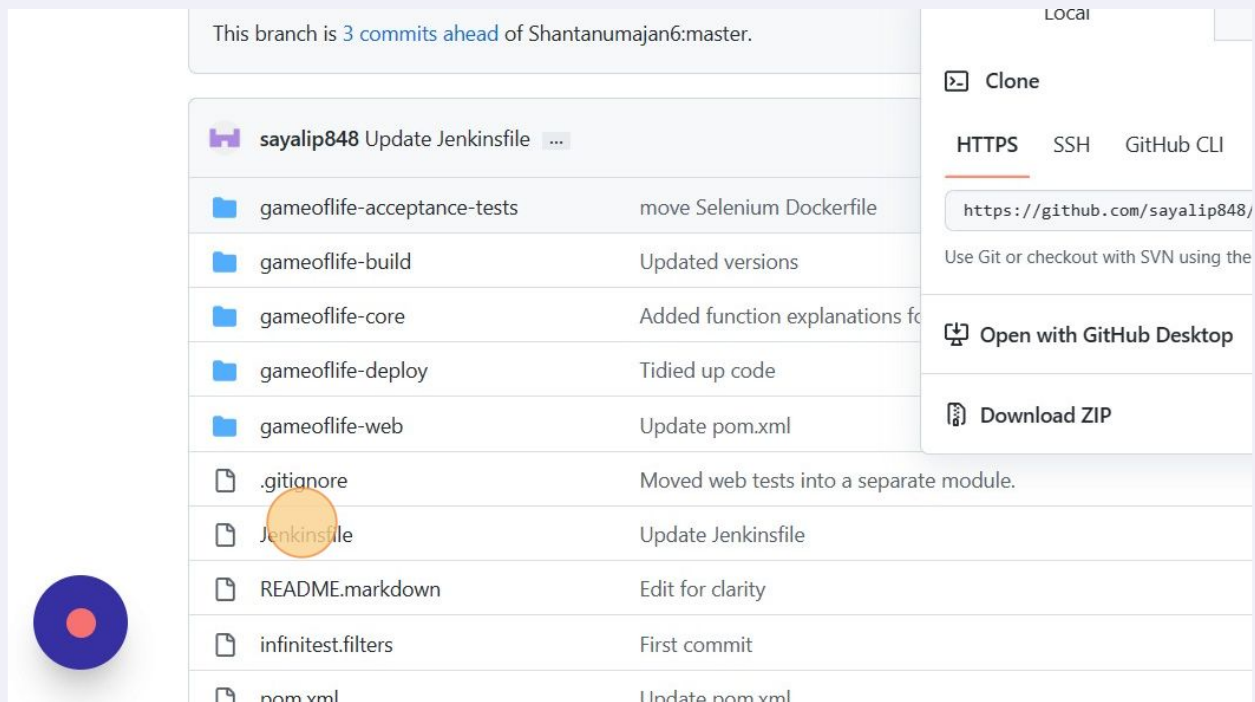
#### Stage View

No data available. This Pipeline has not yet run.

#### Permalinks



## 18 Click "Code"



This branch is 3 commits ahead of Shantanumajan6:master.

**sayalip848 Update Jenkinsfile** ...

File/Folder	Commit Message
gameoflife-acceptance-tests	move Selenium Dockerfile
gameoflife-build	Updated versions
gameoflife-core	Added function explanations for
gameoflife-deploy	Tidied up code
gameoflife-web	Update pom.xml
.gitignore	Moved web tests into a separate module.
Jenkinsfile	Update Jenkinsfile
README.markdown	Edit for clarity
infinittest.filters	First commit
nom.xml	Update nom.xml

Clone

HTTPS SSH GitHub CLI

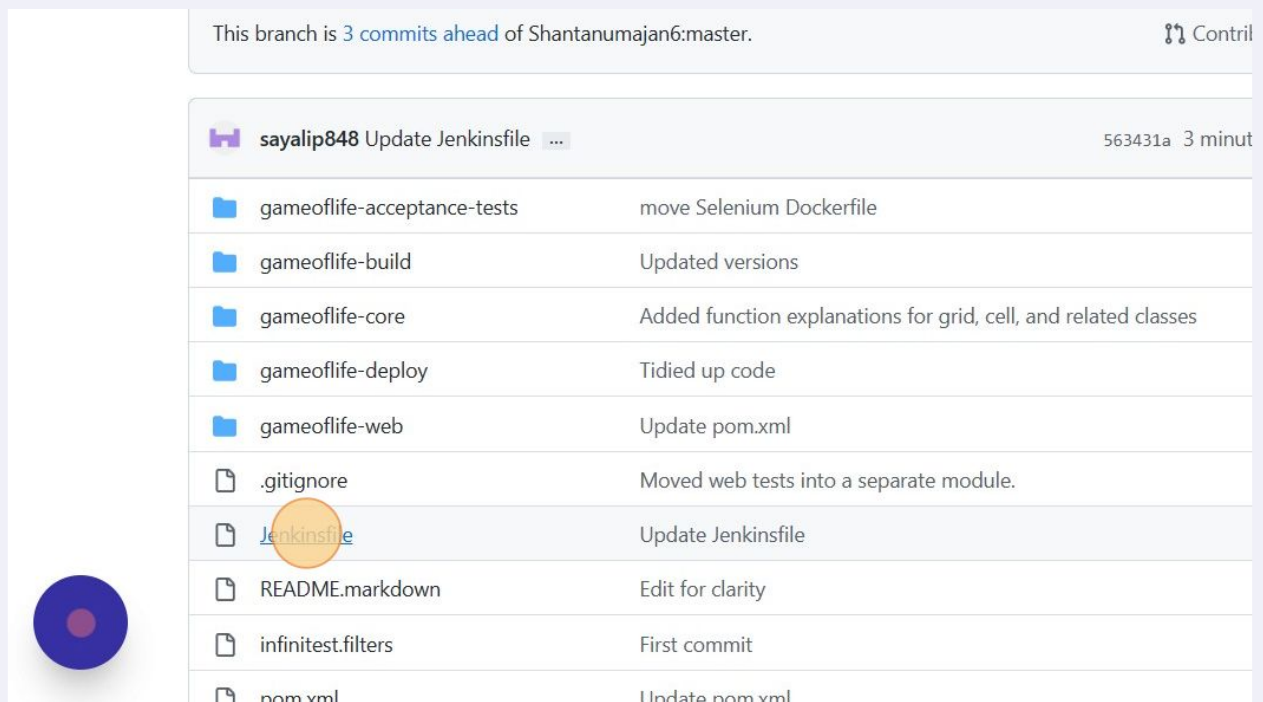
<https://github.com/sayalip848/>

Use Git or checkout with SVN using the

Open with GitHub Desktop

Download ZIP

## 19 Click "Jenkinsfile"



This branch is 3 commits ahead of Shantanumajan6:master.

**sayalip848 Update Jenkinsfile** ... 563431a 3 minut

File/Folder	Commit Message
gameoflife-acceptance-tests	move Selenium Dockerfile
gameoflife-build	Updated versions
gameoflife-core	Added function explanations for grid, cell, and related classes
gameoflife-deploy	Tidied up code
gameoflife-web	Update pom.xml
.gitignore	Moved web tests into a separate module.
Jenkinsfile	Update Jenkinsfile
README.markdown	Edit for clarity
infinittest.filters	First commit
nom.xml	Update nom.xml

20 Navigate to [github.com/sayalip848/game-of-life/blob/master/...](https://github.com/sayalip848/game-of-life/blob/master/...)

21 Click "customWorkspace '/mnt/project'"



```
25 lines (25 sloc) | 613 Bytes
1 pipeline {
2   agent {
3     label {
4       label 'built-in'
5       customWorkspace '/mnt/project'
6     }
7   }
8   stages {
9     stage ('git') {
10      steps {
11        git 'https://github.com/sayalip848/game-of-life.git'
12      }
13    }
14    stage ('compleie') {
15      steps {
16        sh "mvn clean install"
17      }
18    }
19    stage ('deploy') {
20      steps {
21        sh " scp -i ~/sample-kp1.pem gameoflife-web/target/gameoflife.war ec2-user@172.31.32.47:/mnt/install/apache-tomcat-9.0.7"
22      }
23    }
24  }
25 }
```

## 22 Click "label {"

```
25 lines (25 sloc) | 613 Bytes

1 pipeline {
2   agent {
3     label {
4       label 'built-in'
5       customWorkspace '/mnt/project'
6     }
7   }
8   stages {
9     stage ('git') {
10      steps {
11        git 'https://github.com/sayalip848/game-of-life.git'
12      }
13    }
14    stage ('compleie') {
15      steps {
16        sh "mvn clean install"
17      }
18    }
19    stage ('deploy') {
```

## 23 Click "stages {"

```
25 lines (25 sloc) | 613 Bytes

1 pipeline {
2   agent {
3     label {
4       label 'built-in'
5       customWorkspace '/mnt/project'
6     }
7   }
8   stages {
9     stage ('git') {
10      steps {
11        git 'https://github.com/sayalip848/game-of-life.git'
12      }
13    }
14    stage ('compleie') {
15      steps {
16        sh "mvn clean install"
17      }
18    }
19    stage ('deploy') {
20      steps {
```

24 Click "Dec 22, 2022 7:30 AM"

**Stage View**

Delete Pipeline

Full Stage View

Rename

Pipeline Syntax

**Build History** trend

Filter builds...

#1 Dec 22, 2022 7:30 AM

Atom feed for all Atom feed for failures

**Permalinks**

	Declarative: Checkout SCM	git
Average stage times:	762ms	725ms
#1	762ms	725ms

25 Click "Console Output"

Dashboard > assignment-13 > #1

Back to Project

Status

Changes

**Console Output**

Edit Build Information

Delete build '#1'

Git Build Data

Restart from Stage

Replay

**Build #1 (Dec 22, 2022 7:30:27 AM)**

Started by user [sayali](#)

**git** Revision: 563431afc6a78814078368536fff855fc9676f1f  
Repository: <https://github.com/sayalip848/game-of-life.git>

- refs/remotes/origin/master

26

Click "+ mvn clean install

[INFO] Scanning for projects...

[WARNING]

[WARNING] Some problems were encountered while building the effective model for c..."

Dashboard &gt; assignment-13 &gt; #1

```
[INFO] gameoflife ..... SUCCE
[INFO] gameoflife-build ..... SUCCE
[INFO] gameoflife-core ..... SUCCE
[INFO] gameoflife-web ..... SUCCE
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 30.466 s
[INFO] Finished at: 2022-12-22T07:31:03Z
[INFO] -----
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (deploy)
[Pipeline] sh
+ scp -i /root/sample-kp1.pem gameoflife-web/target/gameoflife.wa
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
```

27

Click "Started by user sayali"

Obtained Jenkinsfile from git [github.com/sayalip848/game-of-life.git](https://github.com/sayalip848/game-of-life.git)

[Pipeline] Start of Pipeline

[Pipeline] nod..."

```
[INFO] gameoflife-core ..... SUCCESS [ 9.836 s]
[INFO] gameoflife-web ..... SUCCESS [ 10.482 s]
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 30.466 s
[INFO] Finished at: 2022-12-22T07:31:03Z
[INFO] -----
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (deploy)
[Pipeline] sh
+ scp -i /root/sample-kp1.pem gameoflife-web/target/gameoflife.war ec2-user@172.31.17.10:/home/ec2-user/
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // ws
[Pipeline] }
```

28

Switch to tab "Instances | EC2 Management Console"

29 Click this checkbox.

The screenshot shows the AWS Management Console interface. The top navigation bar includes the AWS logo, a 'Services' menu, a search bar, and a keyboard shortcut '[Alt+S]'. Below the navigation bar, there are icons for various services: EC2, VPC, EFS, S3, IAM, CloudWatch, and Simple Notification Service. On the left side, there is a sidebar with a 'New EC2 Experience' toggle and a list of navigation links: EC2 Dashboard, EC2 Global View, Events, Tags, Limits, and a dropdown for 'Instances'. The 'Instances' dropdown is expanded, showing 'Instances' (highlighted in orange), Instance Types, Launch Templates, and Spot Requests. The main content area is titled 'Instances (1/2) Info' and features a search bar with the placeholder text 'Find instance by attribute or tag (case-sensitive)'. Below the search bar is a table with the following columns: Name, Instance ID, Instance state, and Instance type. The table contains two rows: 'jenkins-master' with Instance ID 'i-02ece85701be7aec8' and state 'Running', and 'slave1' with Instance ID 'i-0bf583ed001d9d946' and state 'Running'. A yellow circle highlights the checkbox next to the 'slave1' row. Below the table, there is a section titled 'Instance: i-0bf583ed001d9d946 (slave1)' with tabs for 'Details', 'Security', 'Networking', 'Storage', 'Status checks', and 'Monitoring'.

Name	Instance ID	Instance state	Instance type
jenkins-master	i-02ece85701be7aec8	Running	t2.mic
slave1	i-0bf583ed001d9d946	Running	t2.mic

30 Click this checkbox.

This screenshot is identical to the one above, showing the AWS Management Console interface. The top navigation bar, sidebar, and main content area are the same. The table contains the same two rows: 'jenkins-master' and 'slave1'. A yellow circle highlights the checkbox next to the 'slave1' row. Below the table, there is a section titled 'Instance: i-0bf583ed001d9d946 (slave1)' with tabs for 'Details', 'Security', 'Networking', 'Storage', 'Status checks', and 'Monitoring'.

Name	Instance ID	Instance state	Instance type
jenkins-master	i-02ece85701be7aec8	Running	t2.mic
slave1	i-0bf583ed001d9d946	Running	t2.mic

31 Click this checkbox.

The screenshot shows the AWS Management Console interface. At the top, there's a navigation bar with the AWS logo, 'Services' menu, a search bar, and a keyboard shortcut '[Alt+S]'. Below this is a horizontal menu with icons for EC2, VPC, EFS, S3, IAM, CloudWatch, and Simple Notification Service. On the left, there's a sidebar with a 'New EC2 Experience' toggle and a list of navigation items: EC2 Dashboard, EC2 Global View, Events, Tags, Limits, Instances (expanded), Instance Types, Launch Templates, and Spot Requests. The main content area is titled 'Instances (2) Info' and contains a search bar with the placeholder text 'Find instance by attribute or tag (case-sensitive)'. Below the search bar is a table with columns: Name, Instance ID, Instance state, and Instance type. The table lists two instances: 'jenkins-master' with ID 'i-02ece85701be7aec8' and 'slave1' with ID 'i-0bf583ed001d9d946'. Both are in a 'Running' state. An orange circle highlights the checkbox next to the 'slave1' instance. Below the table, there's a section titled 'Select an instance'.

<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type
<input type="checkbox"/>	jenkins-master	i-02ece85701be7aec8	Running	t2.micro
<input checked="" type="checkbox"/>	slave1	i-0bf583ed001d9d946	Running	t2.micro

32 Click here.

The screenshot shows the details page for the EC2 instance 'i-0bf583ed001d9d946 (slave1)'. The page has a header with the instance name and a hamburger menu icon. Below the header is a tabbed interface with tabs for Details, Security, Networking, Storage, Status checks, Monitoring, and Tags. The 'Details' tab is selected. Under the 'Instance summary' section, there are several fields: Instance ID (i-0bf583ed001d9d946 (slave1)), IPv6 address (none), Hostname type (ip-172-31-32-47.ap-south-1.compute.internal), Public IPv4 address (43.205.240.102 | open address), Instance state (Running), and Private IP DNS name (ip-172-31-32-47.ap-south-1.compute.internal). An orange circle highlights the 'Public IPv4 address' field. At the bottom, there's a footer with a link to 'Find it in the new Unified Settings' and a copyright notice for Amazon Web Services India Private Limited.

Instance: i-0bf583ed001d9d946 (slave1)

Details | Security | Networking | Storage | Status checks | Monitoring | Tags

▼ Instance summary Info

Instance ID	Public IPv4 address	Private IPv4 address
i-0bf583ed001d9d946 (slave1)	43.205.240.102   <a href="#">open address</a>	
IPv6 address	Instance state	Public IPv6 address
—	Running	1.0.0.0/8
Hostname type	Private IP DNS name (IPv4 only)	
IP name: ip-172-31-32-47.ap-south-1.compute.internal	ip-172-31-32-47.ap-south-1.compute.internal	

Find it in the new Unified Settings

© 2022, Amazon Web Services India Private Limited



**33** Switch to tab "New tab"

**34** Click "New Game"

This is a really cool web version of Conway's famous Game Of Life. The Game of Life is a cellular automaton devised by the British mathematician John Horton Conway in 1970. The universe of the Game of Life is an infinite two-dimensional orthogonal grid of square cells, each of which is in one of two possible states, live or dead (hereafter referred to as 1 and 0). The cells that are directly horizontally, vertically, or diagonally adjacent are referred to as the cell's neighbours. At each step in time, the following transition rules apply:

- Any live cell with fewer than two live neighbours dies, as if caused by underpopulation.
- Any live cell with more than three live neighbours dies, as if by overcrowding.
- Any live cell with two or three live neighbours lives on to the next generation.
- Any dead cell with exactly three live neighbours becomes a live cell.

**New Game**