

Creating Jobs using Jenkins

Jenkins Job Usage Demonstration

- 2 things done
 - o Failure build testing – using Jenkins job
 - o Success build testing – using Jenkins job
- You could view the configuration of this at the end page of this file

shortNotes:

- Install Jenkins and goto localhost:8080
- Manage Jenkins -> Manage Plugins -> search for git related plugin and install those
- **(configuration screenshot at the end)** Name -> freestyle project -> Make the configurations properly
 - o GitHub Project
 - o SCM -> Git
 - o Build Triggers -> Build Periodically (I ran jobs every minute)
 - o Build -> clean site test install

FAILURE BUILD TESTING USING JENKINS JOB

Job started - Git config-MSCS721-roomscheduler - 1st job started (Failure Build Testing using Jenkins Job)

The screenshot shows the Jenkins web interface at localhost:8080. The top navigation bar includes a search bar, the user name 'VivekVells', and a 'log out' link. The left sidebar contains various navigation links: 'New Item', 'People', 'Build History', 'Project Relationship', 'Check File Fingerprint', 'Manage Jenkins', 'My Views', 'Credentials', and 'New View'. The main content area displays a table of jobs. The first job, 'Git config - MSCS721-roomscheduler', is highlighted with a yellow background and a sun icon, indicating it is in progress. The table columns are 'S', 'W', 'Name', 'Last Success', 'Last Failure', and 'Last Duration'. Below the table, there are links for 'Icon: S M L' and 'Legend' with RSS feeds for 'all', 'failures', and 'just latest builds'. On the left side of the main content area, there are two panels: 'Build Queue (1)' showing the job 'Git config - MSCS721-roomscheduler' and 'Build Executor Status' showing the job running on executor #1.

S	W	Name	Last Success	Last Failure	Last Duration
		Git config - MSCS721-roomscheduler	N/A	N/A	N/A

Icon: S M L

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

Build Queue (1)

Git config - MSCS721-roomscheduler

Build Executor Status

1 Git config - MSCS721-roomscheduler #1

2 Idle

Job started - Git config-MSCS721-roomscheduler - 1st job completed (Failure Build Testing using Jenkins Job)

The screenshot shows the Jenkins dashboard at localhost:8080. The left sidebar contains navigation links: New Item, People, Build History, Project Relationship, Check File Fingerprint, Manage Jenkins, My Views, Credentials, and New View. The main content area displays a table of jobs. The job 'Git config - MSCS721-roomscheduler' is shown with a failure status (red lightning bolt icon). The table columns are S, W, Name, Last Success, Last Failure, and Last Duration. The last failure occurred 48 seconds ago, labeled as #3. Below the table, there are links for 'Icon: S M L' and 'Legend' with RSS feeds for all, failures, and latest builds. On the left, the 'Build Queue' section shows 'No builds in the queue.' and the 'Build Executor Status' section shows 1 idle and 2 idle executors.

S	W	Name ↓	Last Success	Last Failure	Last Duration
		Git config - MSCS721-roomscheduler	N/A	48 sec - #3	27 sec

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

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

Build Queue: No builds in the queue.

Build Executor Status: 1 Idle, 2 Idle

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Next Job started - Git config-MSCS721-roomscheduler - Next job started after a minute (Failure Build Testing using Jenkins Job)

The screenshot shows the Jenkins dashboard at localhost:8080, similar to the first one. The job 'Git config - MSCS721-roomscheduler' is shown with a failure status. The last failure occurred 48 seconds ago, labeled as #4. The 'Build Executor Status' section now shows 1 idle and 2 executors, with the second executor (labeled #4) being busy with the current job.

S	W	Name ↓	Last Success	Last Failure	Last Duration
		Git config - MSCS721-roomscheduler	N/A	48 sec - #4	27 sec

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

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

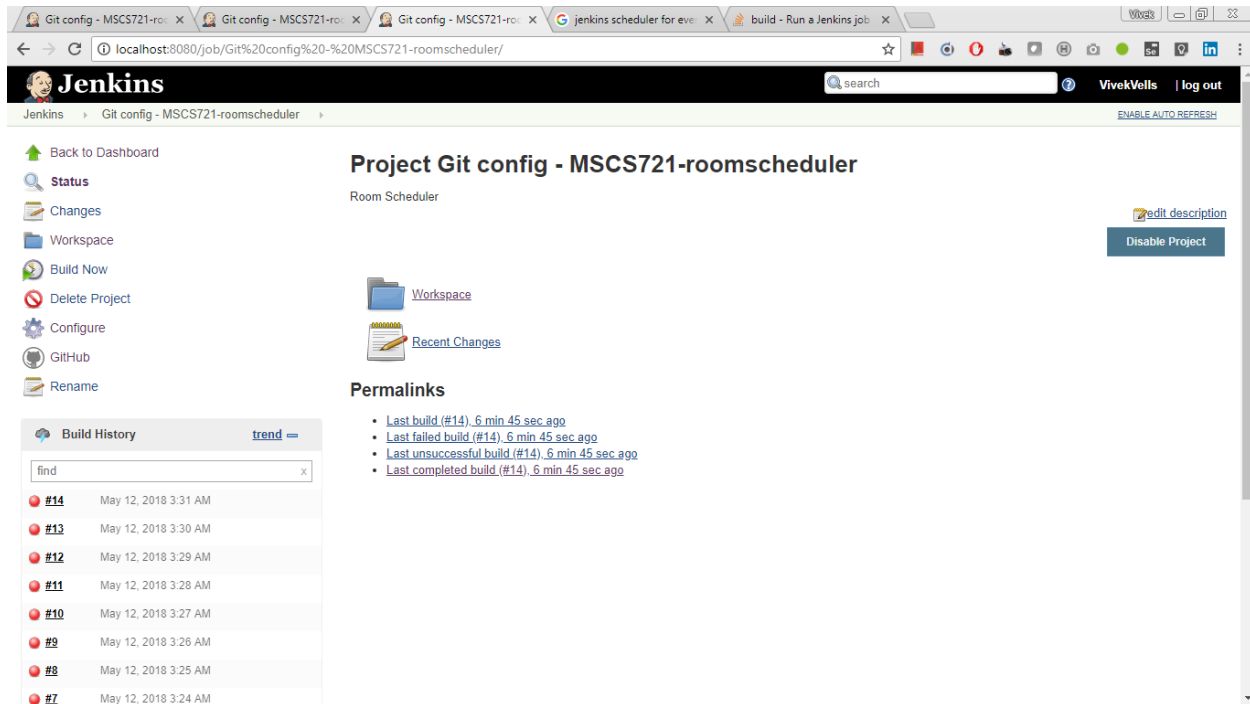
Build Queue: No builds in the queue.

Build Executor Status: 1 Idle, 2 Idle (with #4)

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localhost:8080/computer/(master)/executors/1/stop

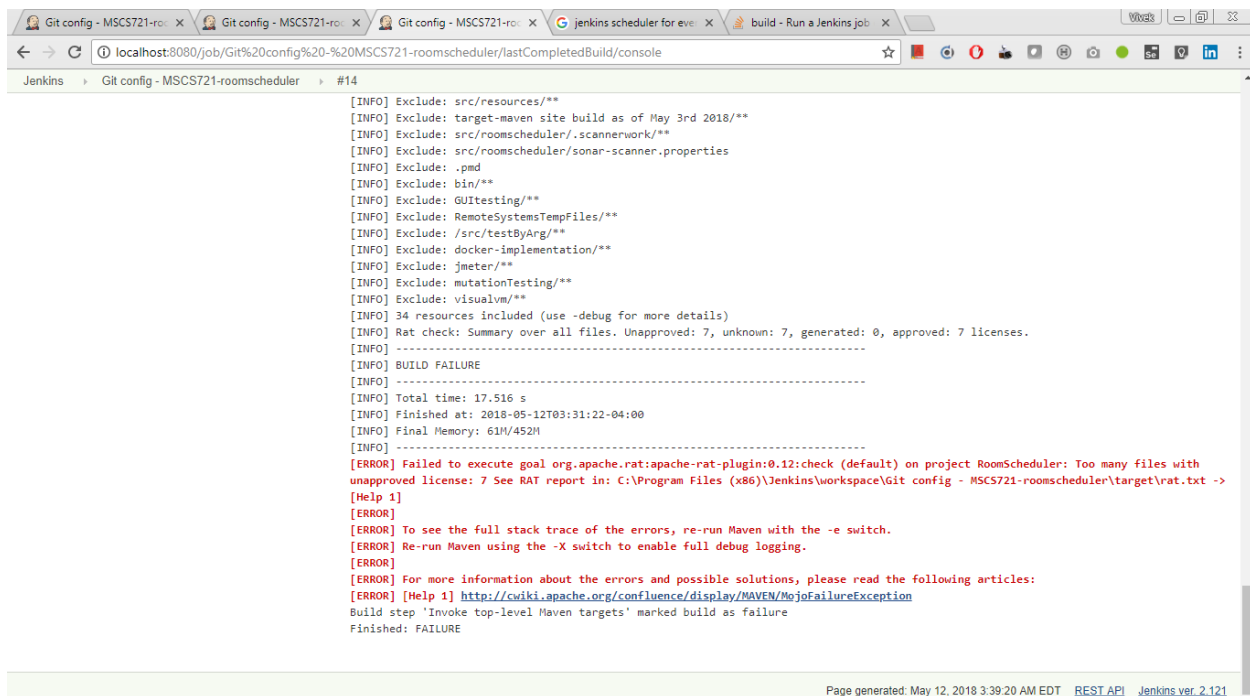
Jenkins Job Completed – Status View (Failure Build Testing using Jenkins Job)



The screenshot shows the Jenkins web interface for the project 'Git config - MSCS721-roomscheduler'. The left sidebar contains navigation links: Back to Dashboard, Status, Changes, Workspace, Build Now, Delete Project, Configure, GitHub, and Rename. The main content area displays the project name, a 'Room Scheduler' label, and links for 'Workspace', 'Recent Changes', and 'Permalinks'. The 'Permalinks' section lists build statuses: Last build (#14), Last failed build (#14), Last unsuccessful build (#14), and Last completed build (#14). Below this is the 'Build History' table, which lists builds #7 through #14 with their respective timestamps.

Build Number	Timestamp
#14	May 12, 2018 3:31 AM
#13	May 12, 2018 3:30 AM
#12	May 12, 2018 3:29 AM
#11	May 12, 2018 3:28 AM
#10	May 12, 2018 3:27 AM
#9	May 12, 2018 3:26 AM
#8	May 12, 2018 3:25 AM
#7	May 12, 2018 3:24 AM

Jenkins Job Completed – Console View (Failure Build Testing using Jenkins Job)



The screenshot shows the Jenkins console view for the project 'Git config - MSCS721-roomscheduler'. The console output displays a series of [INFO] messages, including exclusions for various directories and files, and a summary of resources included. The output then shows a [BUILD FAILURE] message, followed by a [ERROR] message indicating a failure to execute the goal org.apache.rat:apache-rat-plugin:0.12:check (default) on project RoomScheduler. The error message states: 'Too many files with unapproved license: 7 See RAT report in: C:\Program Files (x86)\Jenkins\workspace\Git config - MSCS721-roomscheduler\target\rat.txt ->'. The console also shows the build step 'Invoke top-level Maven targets' marked as failure and the final status 'Finished: FAILURE'.

```
[INFO] Exclude: src/resources/**
[INFO] Exclude: target-maven site build as of May 3rd 2018/**
[INFO] Exclude: src/roomscheduler/.scannerwork/**
[INFO] Exclude: src/roomscheduler/sonar-scanner.properties
[INFO] Exclude: .pmd
[INFO] Exclude: bin/**
[INFO] Exclude: GUItesting/**
[INFO] Exclude: RemoteSystemsTempFiles/**
[INFO] Exclude: /src/testByArg/**
[INFO] Exclude: docker-implementation/**
[INFO] Exclude: jmeter/**
[INFO] Exclude: mutationTesting/**
[INFO] Exclude: visualvm/**
[INFO] 34 resources included (use -debug for more details)
[INFO] Rat check: Summary over all files. Unapproved: 7, unknown: 7, generated: 0, approved: 7 licenses.
[INFO] -----
[INFO] BUILD FAILURE
[INFO] -----
[INFO] Total time: 17.516 s
[INFO] Finished at: 2018-05-12T03:31:22-04:00
[INFO] Final Memory: 61M/452M
[INFO] -----
[ERROR] Failed to execute goal org.apache.rat:apache-rat-plugin:0.12:check (default) on project RoomScheduler: Too many files with
unapproved license: 7 See RAT report in: C:\Program Files (x86)\Jenkins\workspace\Git config - MSCS721-roomscheduler\target\rat.txt ->
[Help 1]
[ERROR]
[ERROR] To see the full stack trace of the errors, re-run Maven with the -e switch.
[ERROR] Re-run Maven using the -X switch to enable full debug logging.
[ERROR]
[ERROR] For more information about the errors and possible solutions, please read the following articles:
[ERROR] [Help 1] http://wiki.apache.org/confluence/display/MAVEN/MojoFailureException
Build step 'Invoke top-level Maven targets' marked build as failure
Finished: FAILURE
```

Jenkins Job (Success build expectation) – Job Status – new code being updated

The screenshot shows the Jenkins web interface for a job named 'Git config - MSCS721-roomscheduler'. The page displays the status of Build #15, which was executed on May 12, 2018, at 3:39:36 AM. The build is in progress, with a progress bar indicating it has been running for 9.8 seconds. The build was started by user 'VivekVells' and is based on revision 'd90fc8a131c57c8648323d46202c2fe0e5fe25bf' from the 'refs/remotes/origin/master' branch. The console output shows a single commit message: '1. pushing this working build so that i can get success jenkins job (commit: d90fc8a) (detail / githubweb)'. The page also includes a sidebar with links to 'Back to Project', 'Status', 'Changes', 'Console Output', 'Edit Build Information', 'Git Build Data', 'No Tags', and 'Previous Build'. The footer indicates the page was generated on May 12, 2018, at 3:39:46 AM EDT, and provides links to the REST API and Jenkins version 2.121.

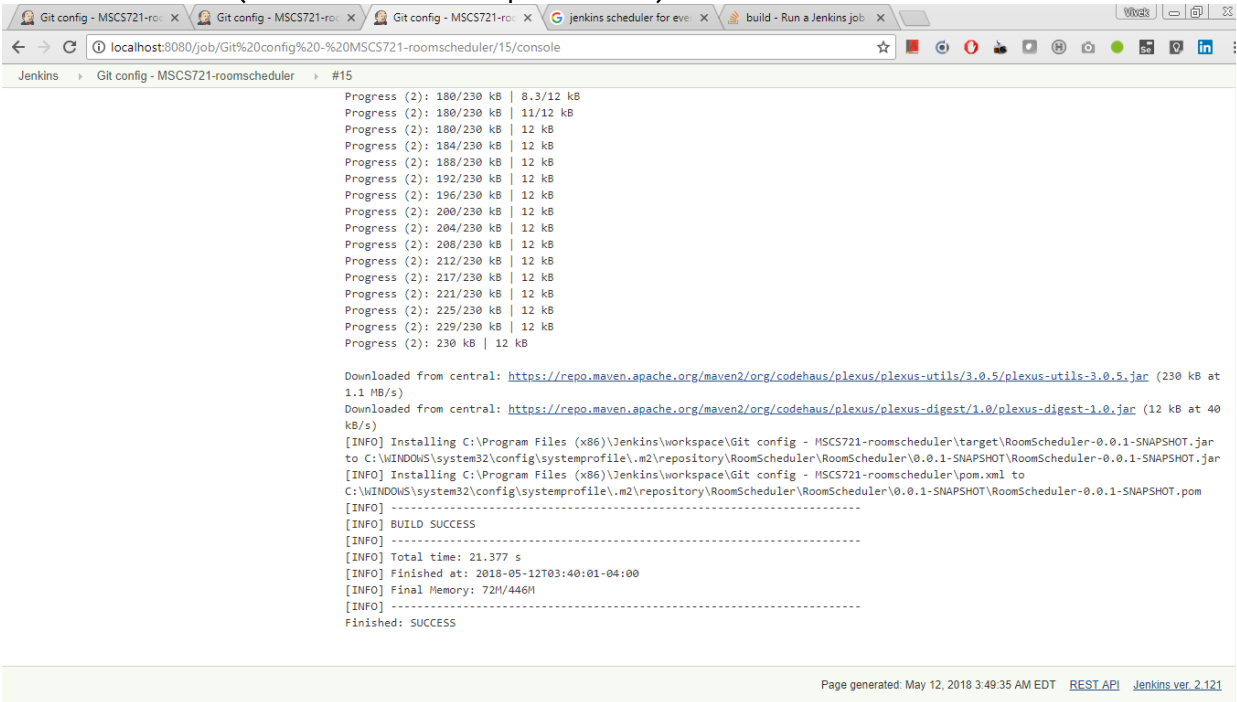
Jenkins Job (Success build expectation) – Build Successful Status View

The screenshot shows the Jenkins web interface for the project 'Git config - MSCS721-roomscheduler'. The page displays the project overview, including the workspace and recent changes. The 'Build History' section shows a list of builds, with the most recent build (#15) being successful. The build history table is as follows:

Build Number	Timestamp
#15	May 12, 2018 3:39 AM
#14	May 12, 2018 3:31 AM
#13	May 12, 2018 3:30 AM
#12	May 12, 2018 3:29 AM
#11	May 12, 2018 3:28 AM
#10	May 12, 2018 3:27 AM
#9	May 12, 2018 3:26 AM

The 'Permalinks' section provides links to various build details, including 'Last build (#15) 10 min ago', 'Last stable build (#15) 10 min ago', 'Last successful build (#15) 10 min ago', 'Last failed build (#14) 18 min ago', 'Last unsuccessful build (#14) 18 min ago', and 'Last completed build (#15) 10 min ago'. The page also includes a sidebar with links to 'Back to Dashboard', 'Status', 'Changes', 'Workspace', 'Build Now', 'Delete Project', 'Configure', 'GitHub', and 'Rename'.

Jenkins Job (Success build expectation) - Build Successful Console View




Progress (2): 180/230 kB | 8.3/12 kB
Progress (2): 180/230 kB | 11/12 kB
Progress (2): 180/230 kB | 12 kB
Progress (2): 184/230 kB | 12 kB
Progress (2): 188/230 kB | 12 kB
Progress (2): 192/230 kB | 12 kB
Progress (2): 196/230 kB | 12 kB
Progress (2): 200/230 kB | 12 kB
Progress (2): 204/230 kB | 12 kB
Progress (2): 208/230 kB | 12 kB
Progress (2): 212/230 kB | 12 kB
Progress (2): 217/230 kB | 12 kB
Progress (2): 221/230 kB | 12 kB
Progress (2): 225/230 kB | 12 kB
Progress (2): 229/230 kB | 12 kB
Progress (2): 230 kB | 12 kB

Downloaded from central: <https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/3.0.5/plexus-utils-3.0.5.jar> (230 kB at 1.1 MB/s)
Downloaded from central: <https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-digest/1.0/plexus-digest-1.0.jar> (12 kB at 40 kB/s)
[INFO] Installing C:\Program Files (x86)\Jenkins\workspace\Git config - MSCS721-roomScheduler\target\RoomScheduler-0.0.1-SNAPSHOT.jar to C:\WINDOWS\system32\config\systemprofile\.m2\repository\RoomScheduler\RoomScheduler\0.0.1-SNAPSHOT\RoomScheduler-0.0.1-SNAPSHOT.jar
[INFO] Installing C:\Program Files (x86)\Jenkins\workspace\Git config - MSCS721-roomScheduler\pom.xml to C:\WINDOWS\system32\config\systemprofile\.m2\repository\RoomScheduler\RoomScheduler\0.0.1-SNAPSHOT\RoomScheduler-0.0.1-SNAPSHOT.pom
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 21.377 s
[INFO] Finished at: 2018-05-12T03:40:01-04:00
[INFO] Final Memory: 72M/446M
[INFO] -----
Finished: SUCCESS

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Jenkins Configuration with Github – Git config-MSCS721-roomscheduler

 Jenkins

search

VivekVells | log out

Jenkins > VivekVells > My Views > All > Git config - MSCS721-roomscheduler >

General

Source Code Management

Build Triggers

Build Environment

Build

Post-build Actions

Description

Room Scheduler

[Plain text] Preview

☐ Discard old builds

☒ GitHub project

Project url

https://github.com/vivekVells/MSCS721-roomScheduler.git/

Advanced...

☐ This project is parameterized

☐ Throttle builds

☐ Disable this project

☐ Execute concurrent builds if necessary

Advanced...

Source Code Management

☐ None

☒ Git

Repositories

Repository URL

https://github.com/vivekVells/MSCS721-roomScheduler.git

Credentials

vivekVells/*****

Add

Advanced...

Add Repository

Branches to build

Branch Specifier (blank for 'any')

*/master

Add Branch

Repository browser

(Auto)

Additional Behaviours

Add

☐ Subversion

Build Triggers

☐ Trigger builds remotely (e.g., from scripts)

☐ Build after other projects are built

☒ Build periodically

Schedule

Do you really mean "every minute" when you say "*****"? Perhaps you meant "H * * * *" to poll once per hour

Would last have run at Saturday, May 12, 2018 3:21:53 AM EDT; would next run at Saturday, May 12, 2018 3:21:53 AM EDT.

☐ GitHub hook trigger for GITScm polling

☐ Maven Dependency Update Trigger

☒ Poll SCM

Schedule

Do you really mean "every minute" when you say "*****"? Perhaps you meant "H * * * *" to poll once per hour

Would last have run at Saturday, May 12, 2018 3:21:53 AM EDT; would next run at Saturday, May 12, 2018 3:21:53 AM EDT.

Ignore post-commit hooks

☐

Build Environment

☐ Delete workspace before build starts

☐ Use secret text(s) or file(s)

☐ Abort the build if it's stuck

☐ Add timestamps to the Console Output

☐ With Ant

Build

Invoke top-level Maven targets

Goals

clean site test install

Advanced...

Add build step

Post-build Actions

Add post-build action

Save

Apply

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