КАК СОЗДАТЬ ПОЛНУЮ КОМПОНОВКУ ПРОЦЕССА ДЛЯ ПРОЕКТА НА AEM

Никита Митрошин
Certified AEM Developer в Axamit

Continuous Integration, Continuous Delivery & Continuous Deployment

- **Continuous Integration** — the practice that requires developers to integrate code into a shared repository several times a day. Each check-in is then verified by an automated build, allowing teams to detect problems early.
- **Continuous Delivery** — a software development discipline where you build software in such a way that the software can be released to production at any time.
- **Continuous Deployment** — releasing every good build to users.

Continuous Integration

Continuous Delivery

Continuous Deployment

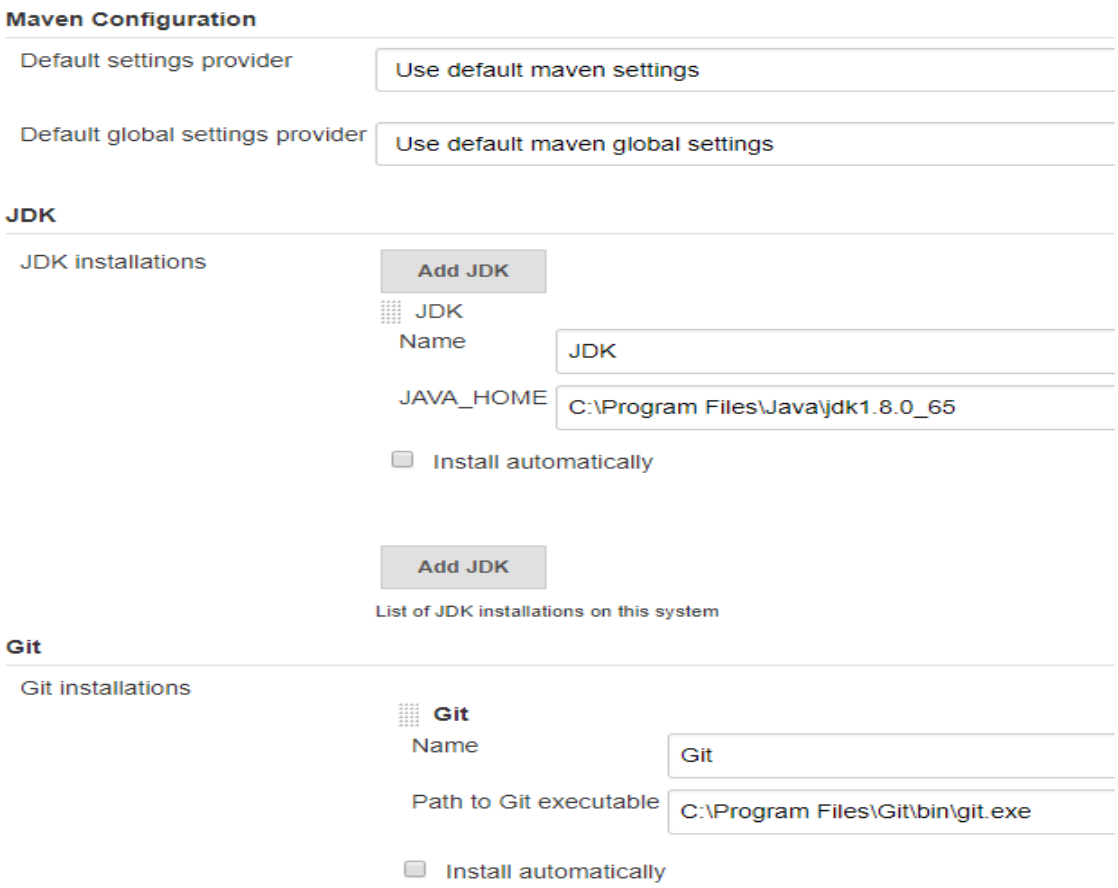
AXAMIT

Let’s configure!

AXAMIT

Configure Jenkins job to trigger build on branch change

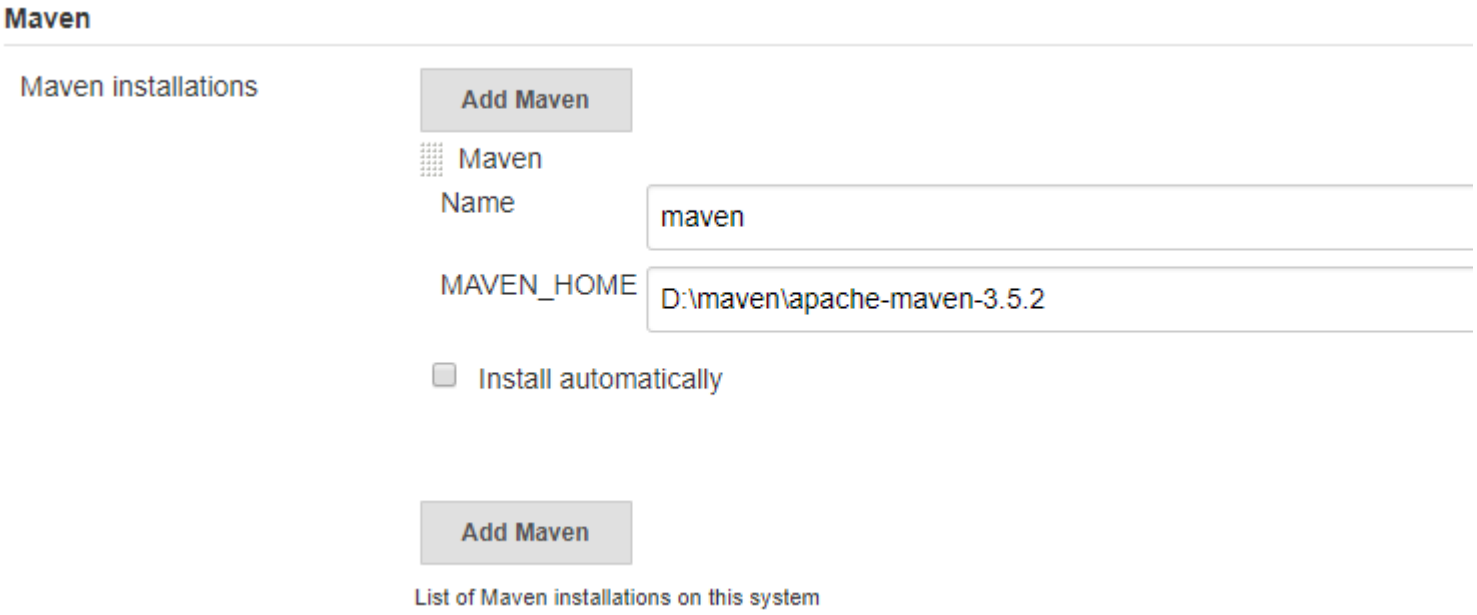
Jenkins - Global Tool Configuration



AXAMIT

Configure Jenkins job to trigger build on branch change

Jenkins - Global Tool Configuration

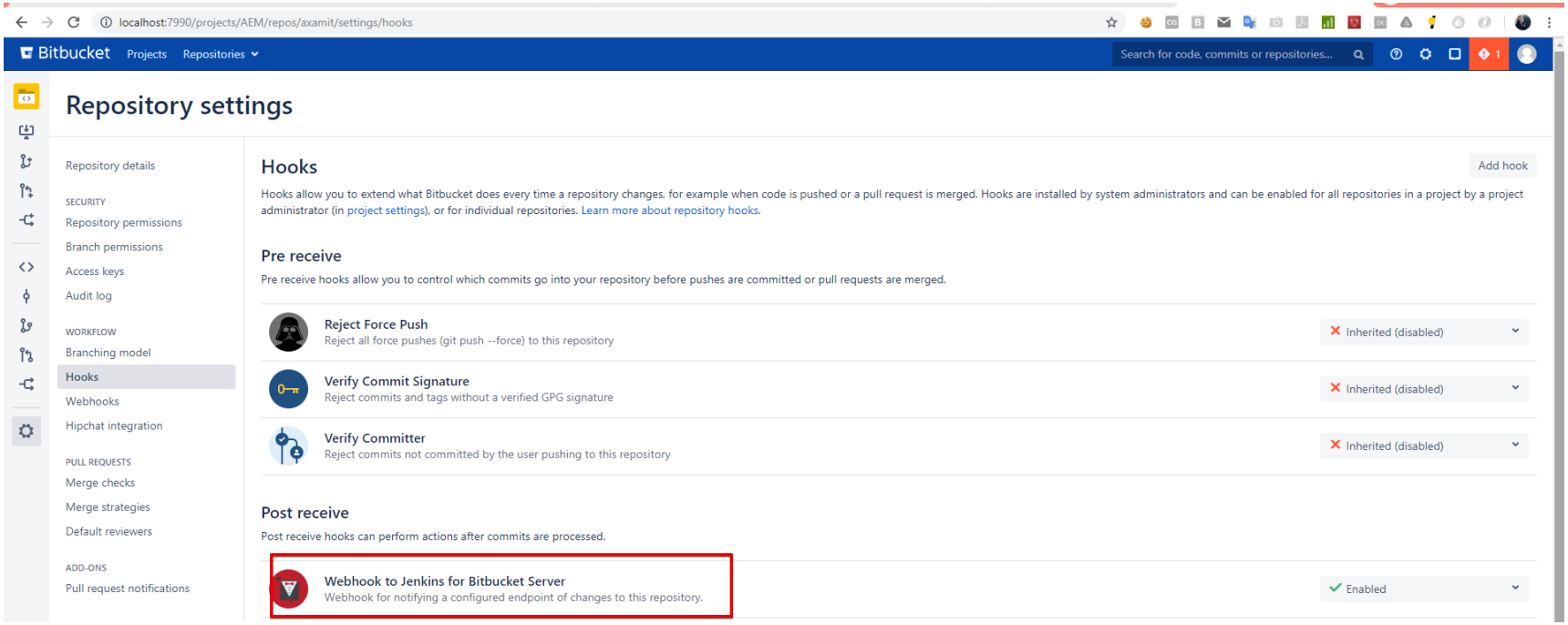


AXAMIT

Configure Jenkins job to trigger build on branch change

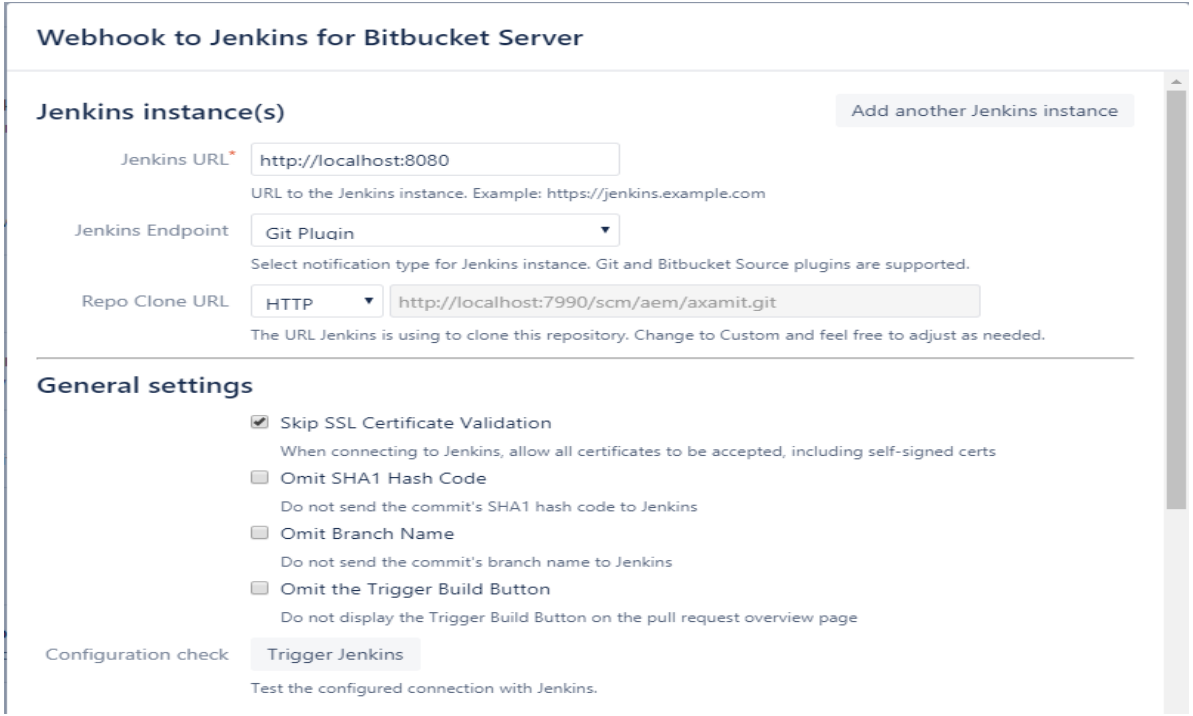
Install Bitbucket Plugin for Jenkins

https://wiki.jenkins.io/display/JENKINS/BitBucket+Plugin



AXAMIT

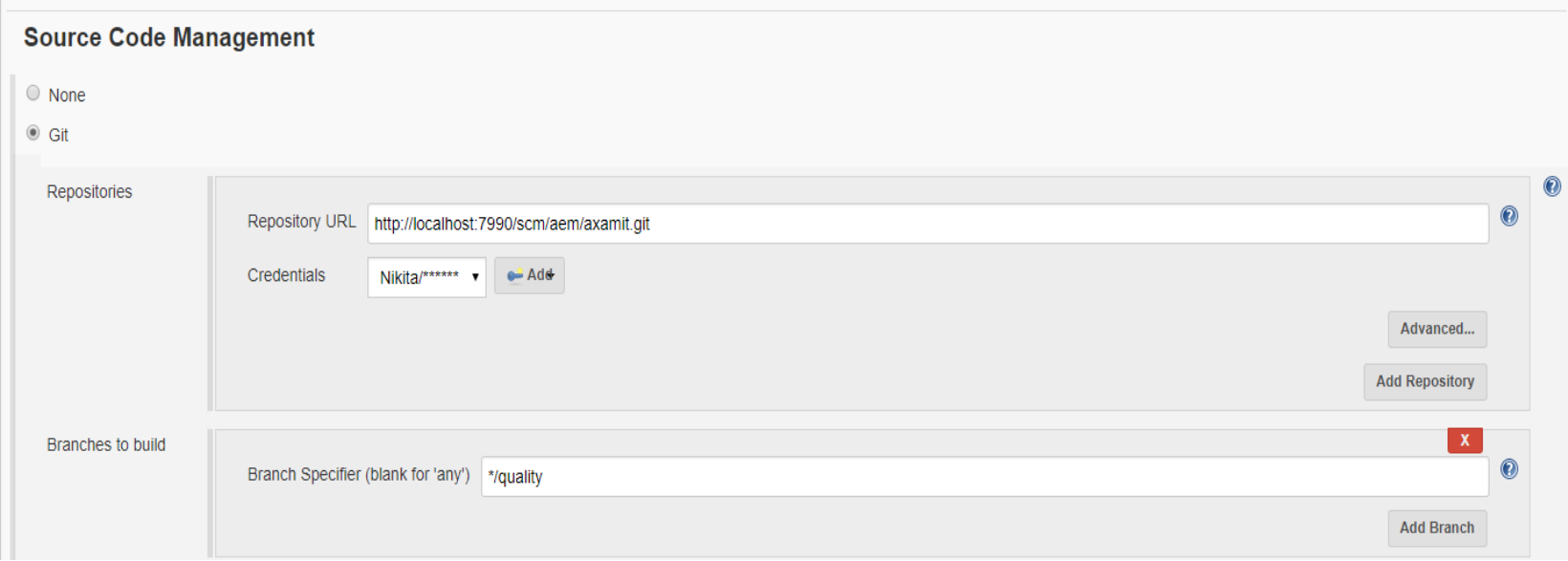
Configure Jenkins job to trigger build on branch change



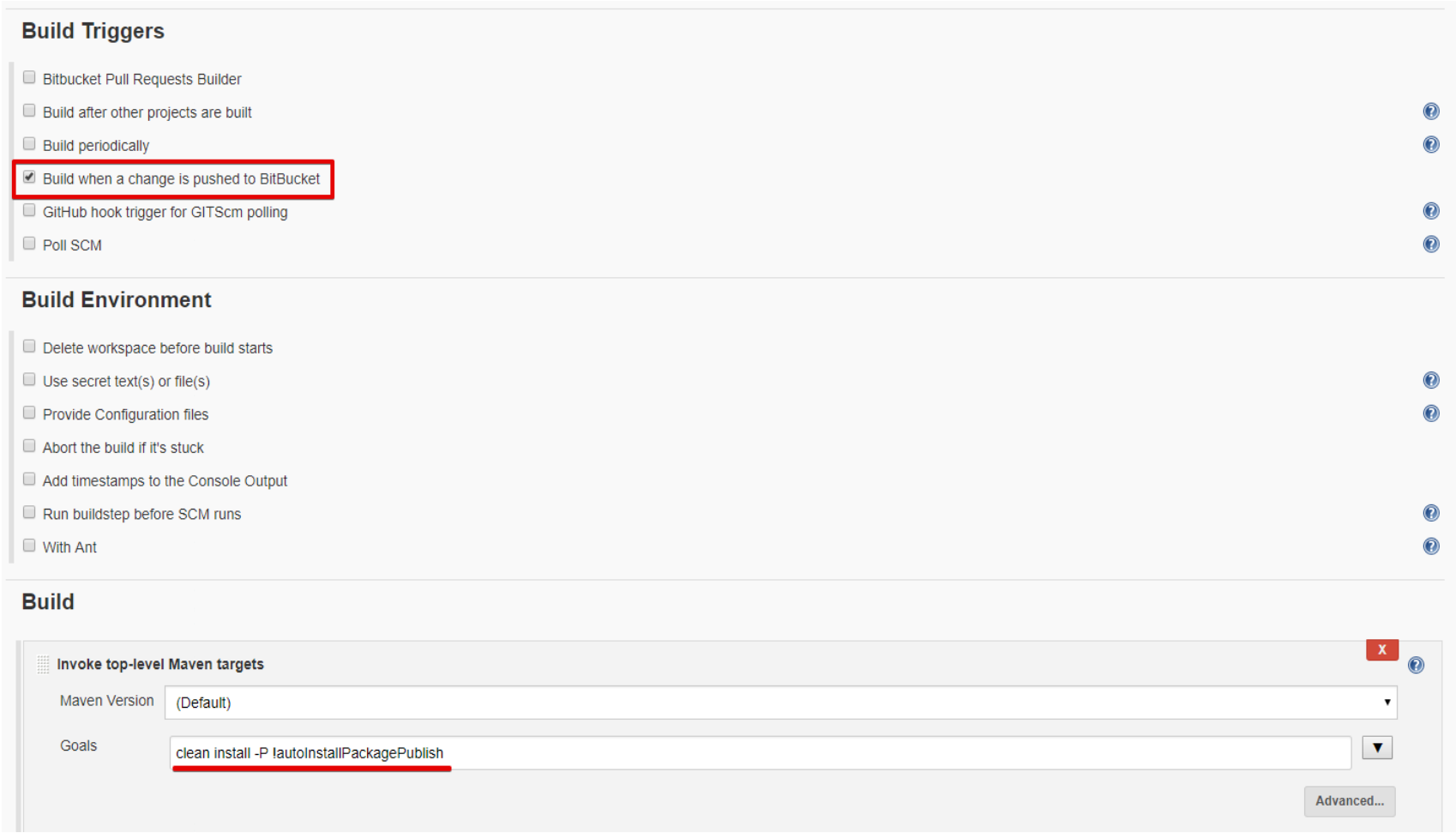
AXAMIT

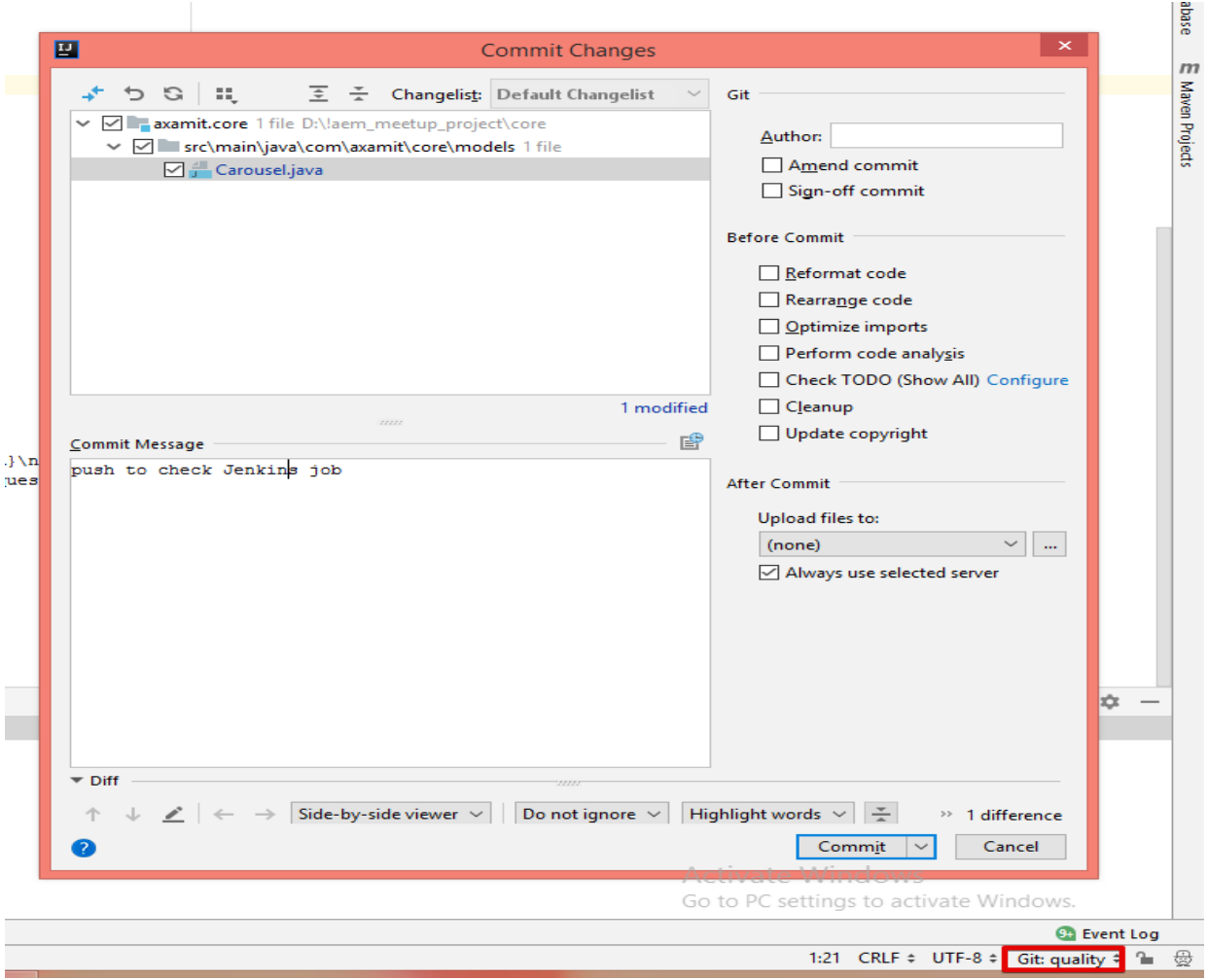
Configure Jenkins job to trigger build on branch change

Jenkins – New Item – Freestyle Project

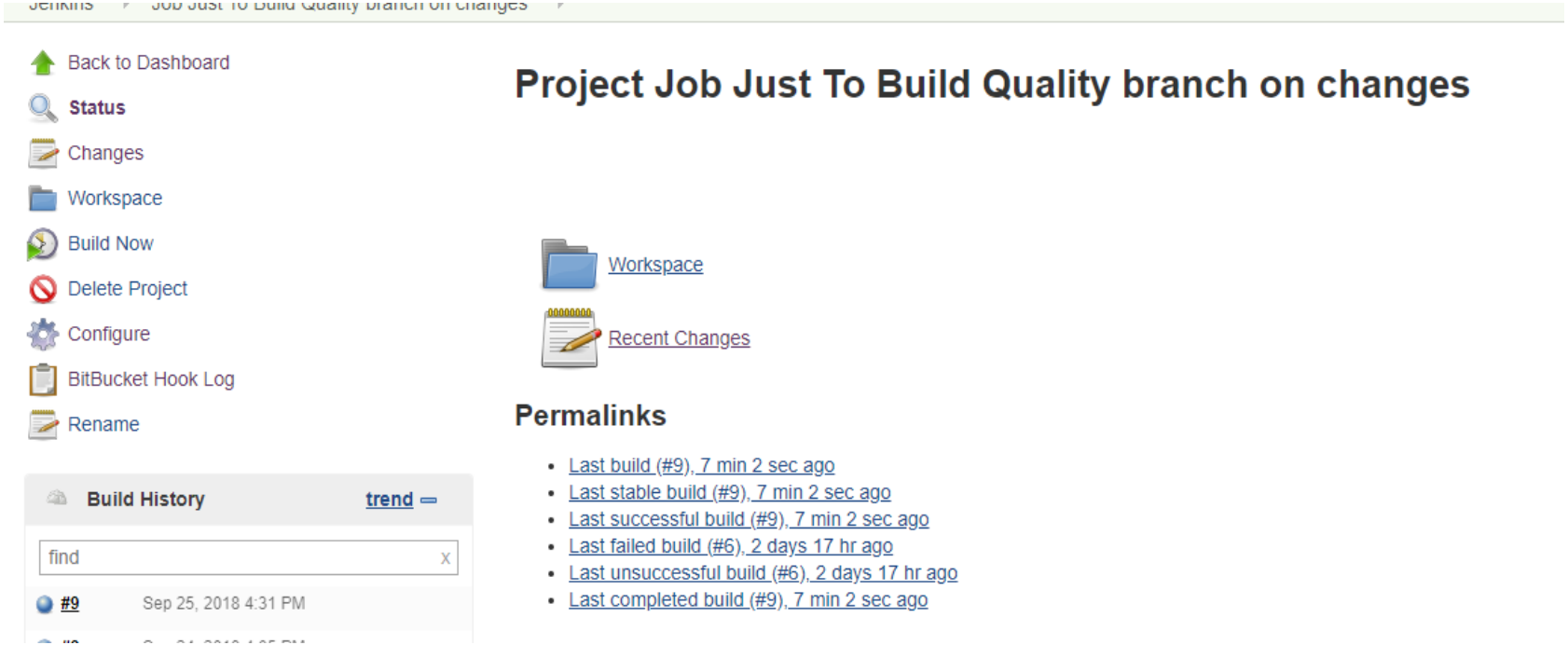


AXAMIT


Build Triggers
Bitbucket Pull Requests Builder
Build after other projects are built
Build periodically
Build when a change is pushed to BitBucket
GitHub hook trigger for GITScm polling
Poll SCM
Build Environment
Delete workspace before build starts
Use secret text(s) or file(s)
Provide Configuration files
Abort the build if it's stuck
Add timestamps to the Console Output
Run buildstep before SCM runs
With Ant
Build
Invoke top-level Maven targets
Maven Version
(Default)
Goals
clean install -P !autoInstallPackagePublish
Advanced...


Commit Changes
Changelist: Default Changelist
axamit.core 1 file D:\laem_meetup_project\core
src\main\java\com\axamit\core\models 1 file
Carousel.java
1 modified
Commit Message
push to check Jenkins job
Git
Author:
Amend commit
Sign-off commit
Before Commit
Reformat code
Rearrange code
Optimize imports
Perform code analysis
Check TODO (Show All) Configure
Cleanup
Update copyright
After Commit
Upload files to:
(none)
Always use selected server
Diff
Side-by-side viewer
Do not ignore
Highlight words
1 difference
Commit
Cancel
Activate Windows
Go to PC settings to activate Windows.
Event Log
1:21 CRLF UTF-8 Git: quality
Maven Projects

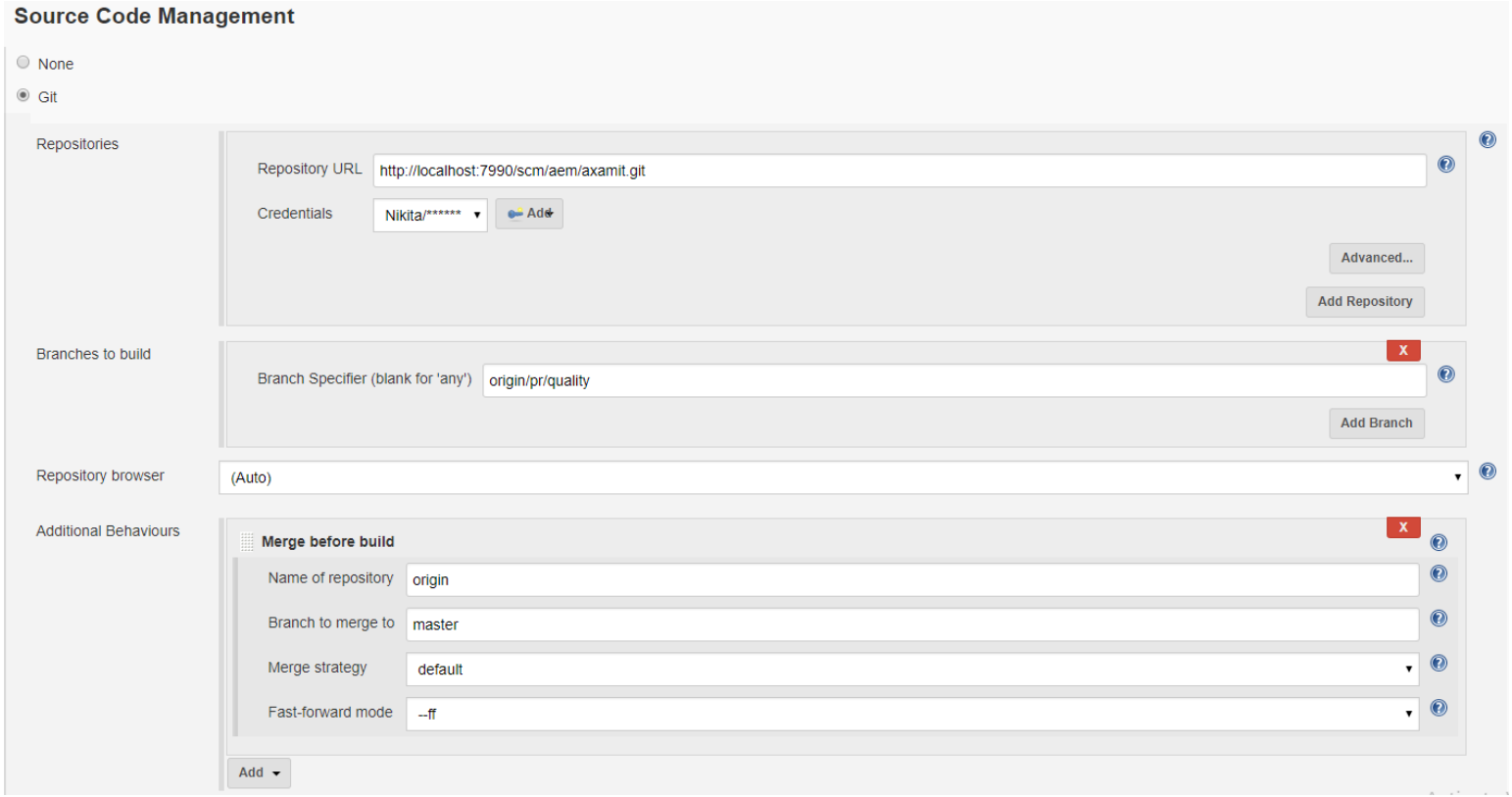
AXAMIT


Jenkins ▸ Job Just To Build Quality branch on changes ▸
Back to Dashboard
Status
Changes
Workspace
Build Now
Delete Project
Configure
BitBucket Hook Log
Rename
Build History
trend
find
#9
Sep 25, 2018 4:31 PM
Project Job Just To Build Quality branch on changes
Workspace
Recent Changes
Permalinks
Last build (#9), 7 min 2 sec ago
Last stable build (#9), 7 min 2 sec ago
Last successful build (#9), 7 min 2 sec ago
Last failed build (#6), 2 days 17 hr ago
Last unsuccessful build (#6), 2 days 17 hr ago
Last completed build (#9), 7 min 2 sec ago

AXAMIT

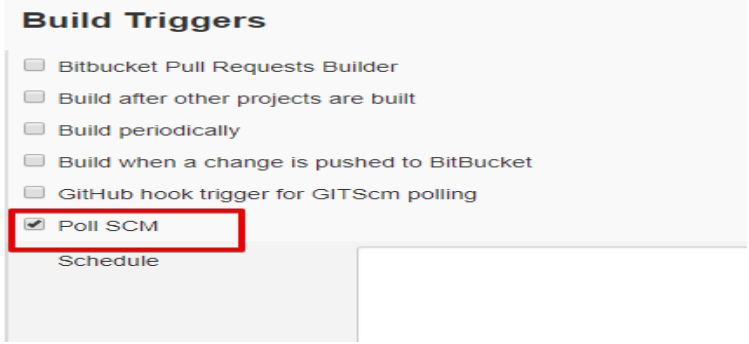
Configure Jenkins job to check PR's in Bitbucket

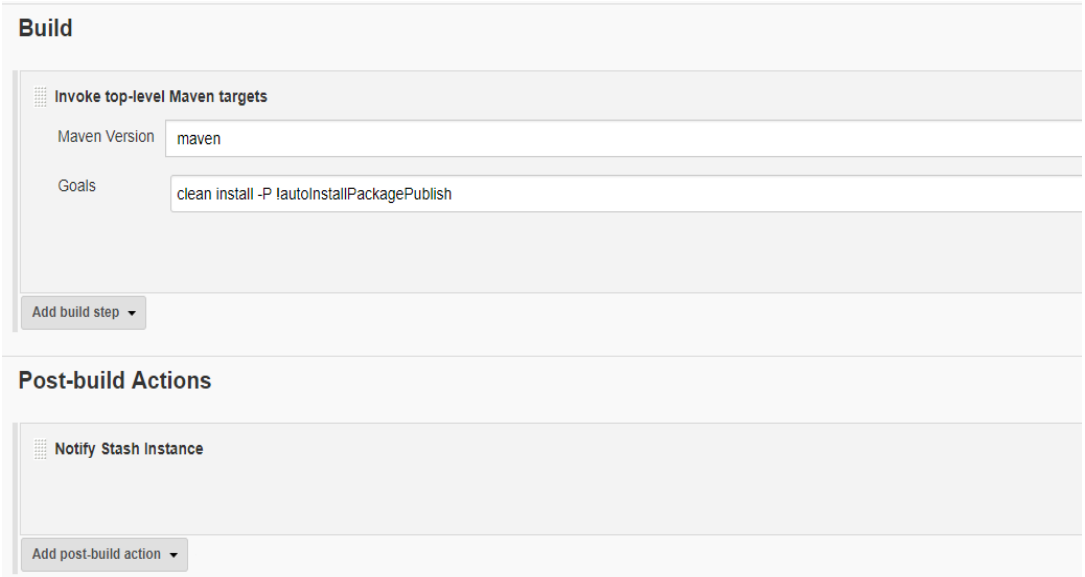
Jenkins – New Item – Freestyle Project



AXAMIT

Configure Jenkins job to check PR's in Bitbucket





AXAMIT

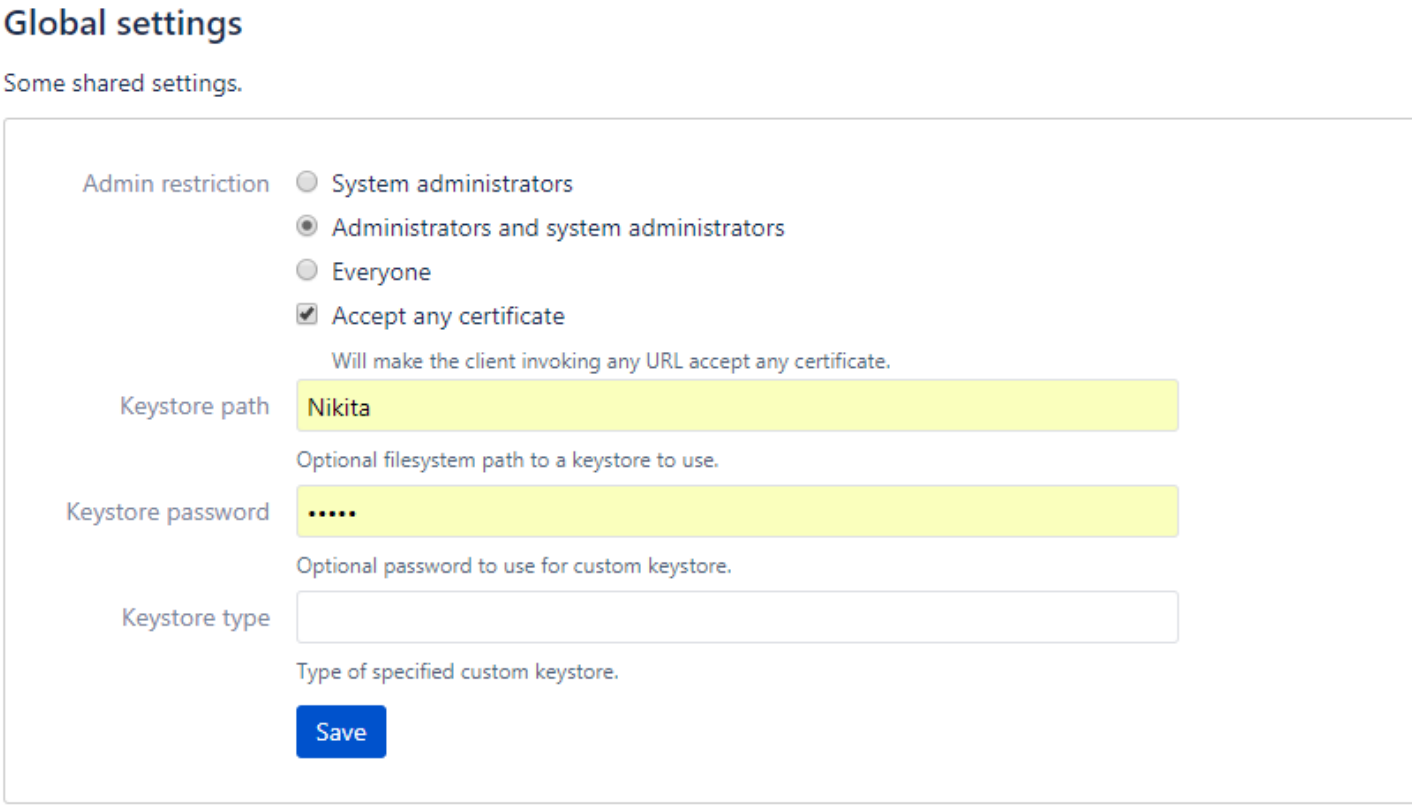
Configure Jenkins job to check PR’s in Bitbucket

Configure Bitbucket

Install Pull Request Notifier for Bitbucket

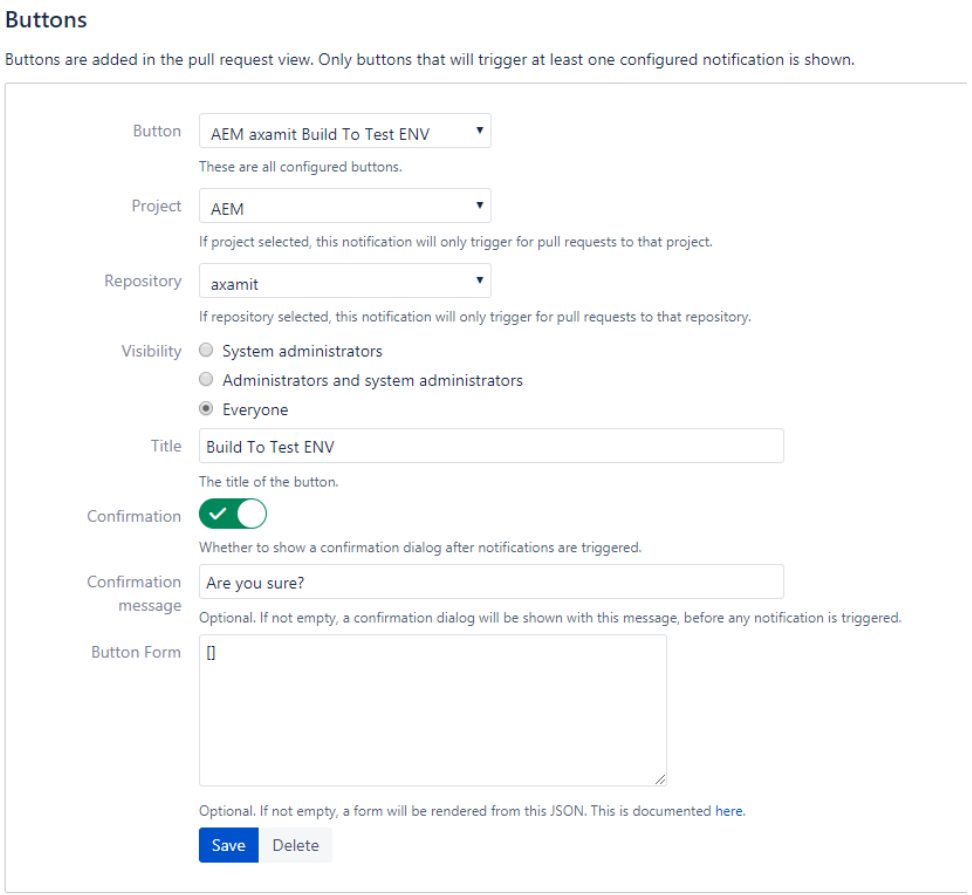
https://marketplace.atlassian.com/apps/1213177/pull-request-notifier-for-bitbucket

Configure Jenkins job to check PR's in Bitbucket



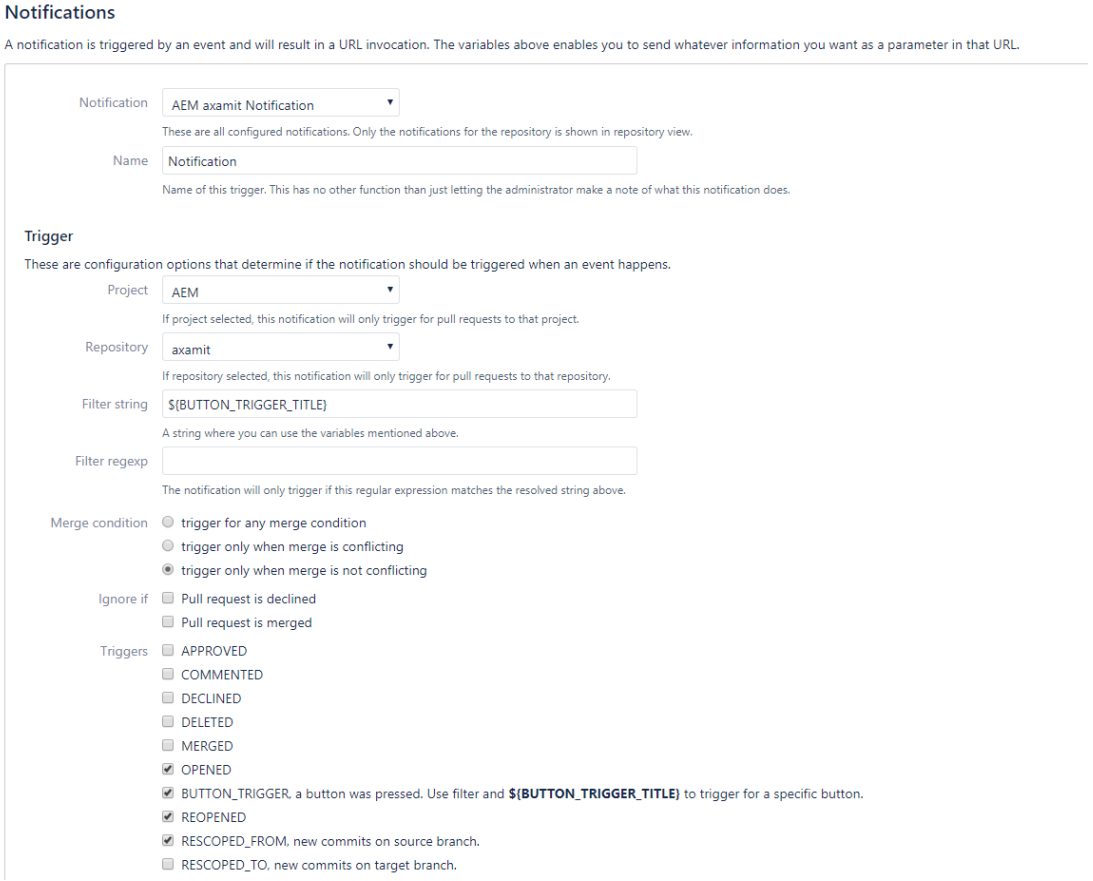
AXAMIT

Configure Jenkins job to check PR’s in Bitbucket



AXAMIT

Configure Jenkins job to check PR's in Bitbucket



Notifications

A notification is triggered by an event and will result in a URL invocation. The variables above enables you to send whatever information you want as a parameter in that URL.

Notification: AEM axamit Notification

These are all configured notifications. Only the notifications for the repository is shown in repository view.

Name: Notification

Name of this trigger. This has no other function than just letting the administrator make a note of what this notification does.

Trigger

These are configuration options that determine if the notification should be triggered when an event happens.

Project: AEM

If project selected, this notification will only trigger for pull requests to that project.

Repository: axamit

If repository selected, this notification will only trigger for pull requests to that repository.

Filter string: ${BUTTON_TRIGGER_TITLE}

A string where you can use the variables mentioned above.

Filter regexp:

The notification will only trigger if this regular expression matches the resolved string above.

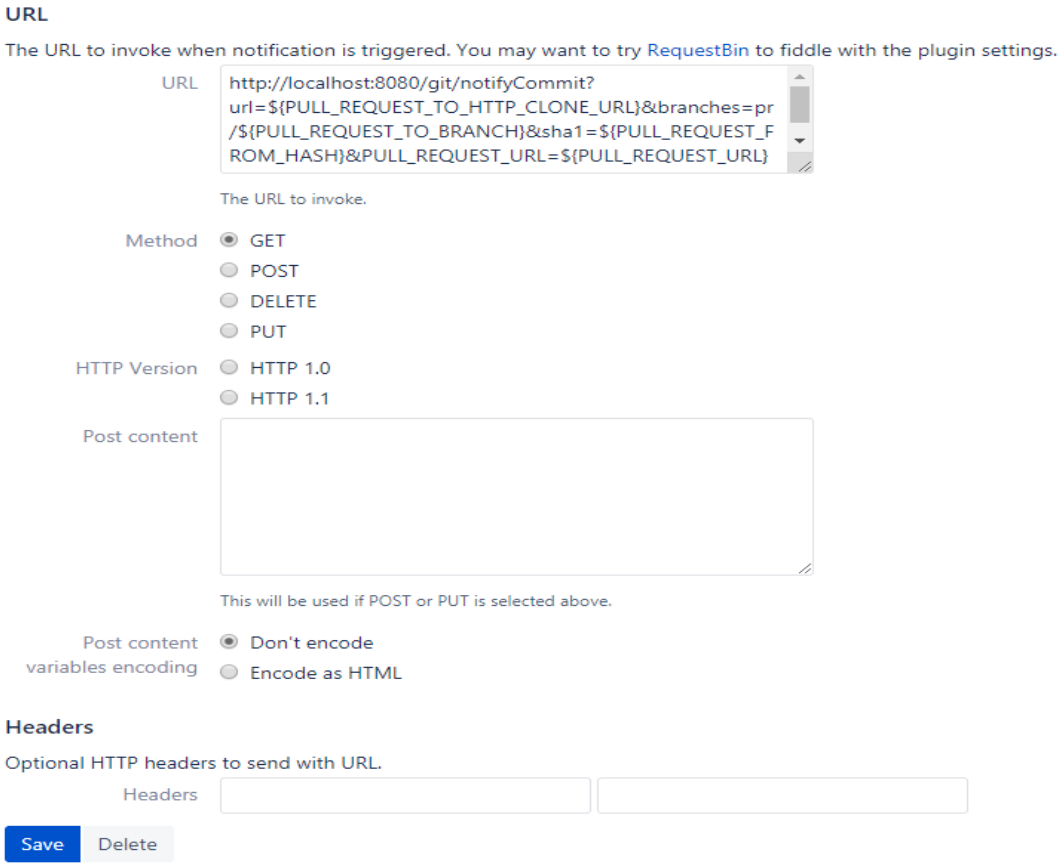
Merge condition:
- ○ trigger for any merge condition
- ○ trigger only when merge is conflicting
- ◉ trigger only when merge is not conflicting

Ignore if:
- ☐ Pull request is declined
- ☐ Pull request is merged

Triggers:
- ☐ APPROVED
- ☐ COMMENTED
- ☐ DECLINED
- ☐ DELETED
- ☐ MERGED
- ☑ OPENED
- ☑ BUTTON_TRIGGER, a button was pressed. Use filter and **${BUTTON_TRIGGER_TITLE}** to trigger for a specific button.
- ☑ REOPENED
- ☑ RESCOPED_FROM, new commits on source branch.
- ☐ RESCOPED_TO, new commits on target branch.

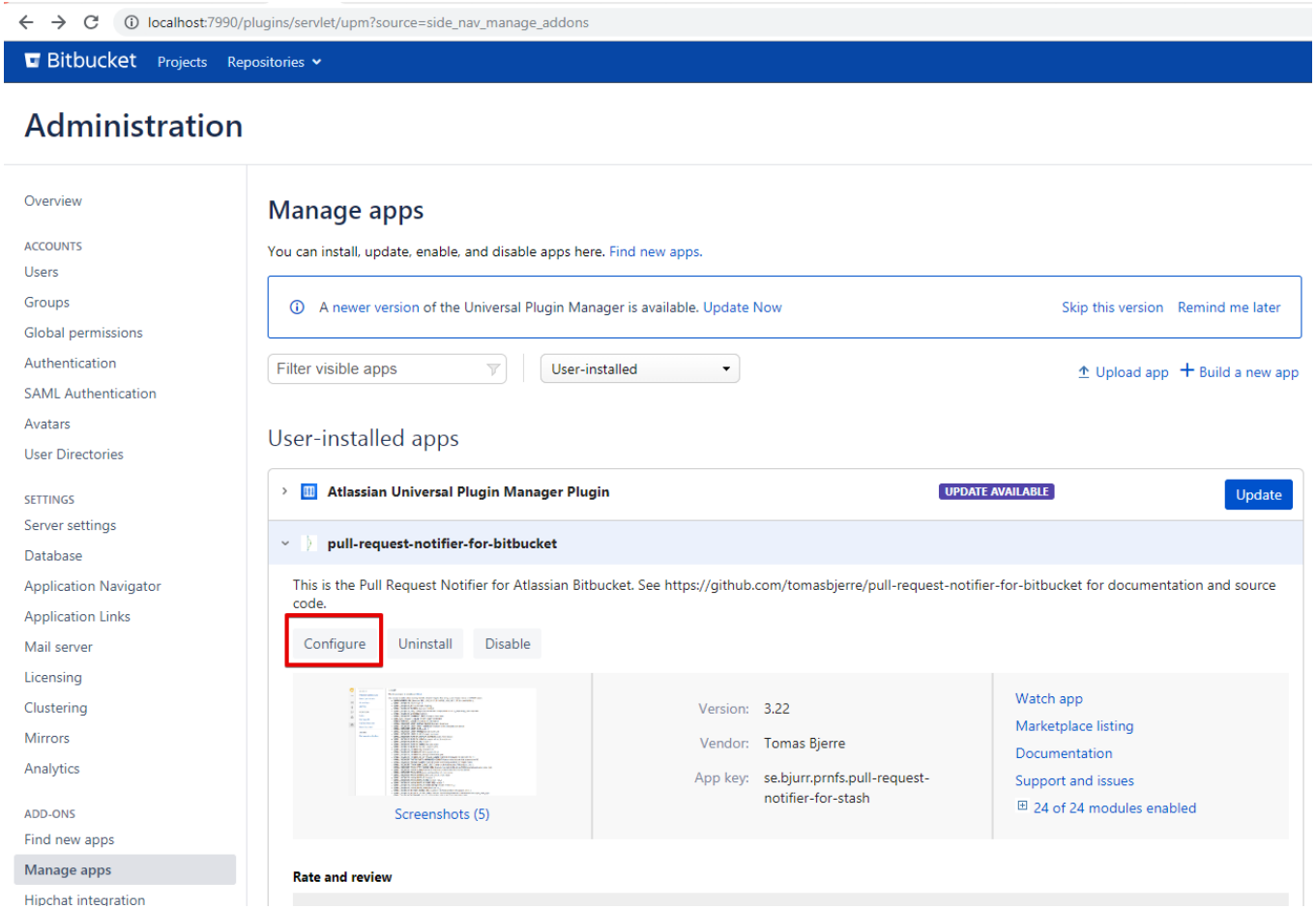
AXAMIT

Configure Jenkins job to check PR's in Bitbucket



AXAMIT

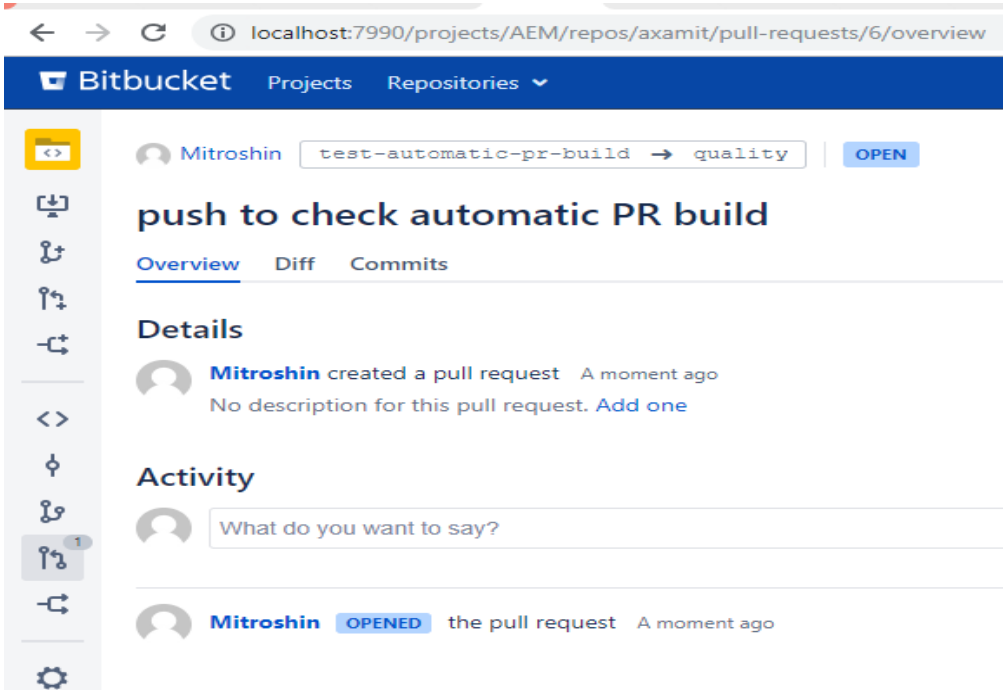
Configure Jenkins job to check PR's in Bitbucket



AXAMIT

Configure Jenkins job to check PR's in Bitbucket

Create PR



AXAMIT

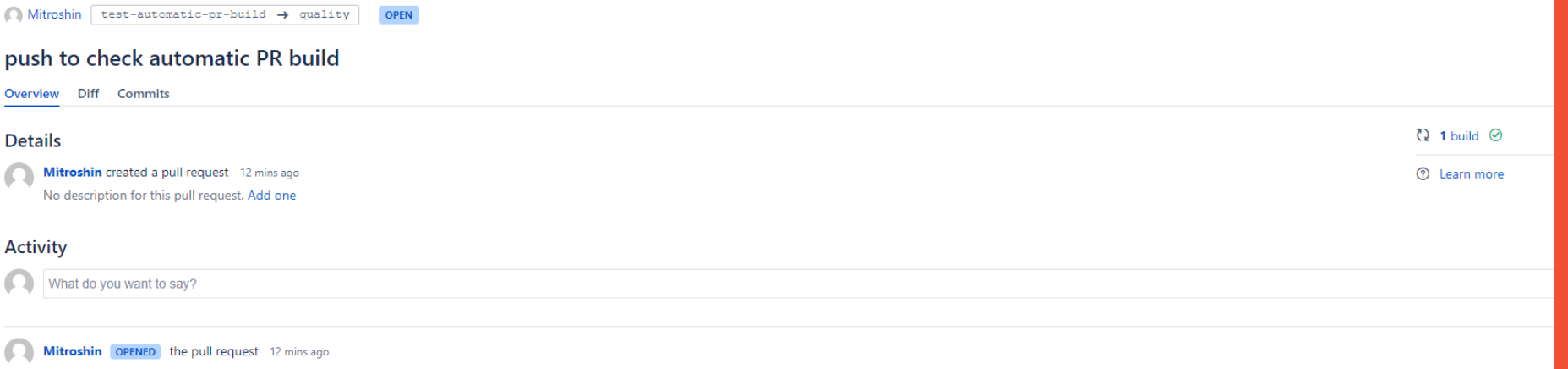
Configure Jenkins job to check PR's in Bitbucket

Check Jenkins

AXAMIT

Configure Jenkins job to check PR's in Bitbucket

Check PR page



AXAMIT

Build Pipeline

While standard Jenkins “freestyle” jobs support simple continuous integration by allowing you to define sequential tasks in an application lifecycle, they do not create a persistent record of execution, enable one script to address all the steps in a complex workflow, or confer the other advantages of pipelines.

In contrast to freestyle jobs, pipelines enable you to define the whole application lifecycle. Pipeline functionality helps Jenkins to support continuous delivery (CD). The Pipeline plugin was built with requirements for a flexible, extensible, and script-based CD workflow capability in mind.

AXAMIT

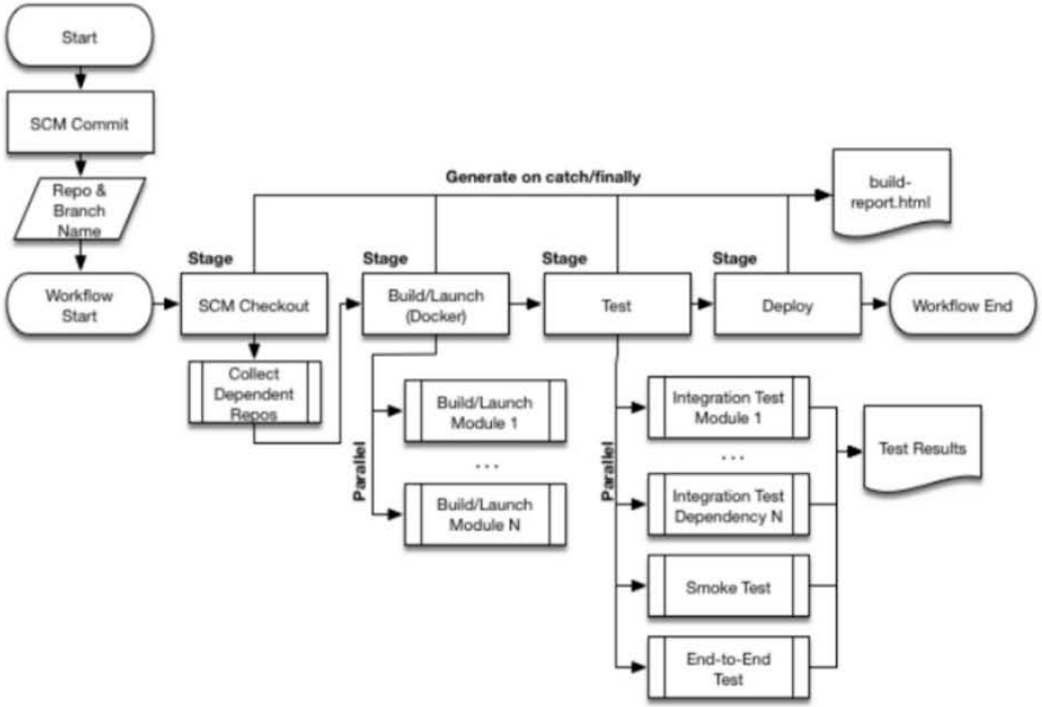
Pipeline Benefits

Accordingly, pipeline functionality is:

- **Durable**: Pipelines can survive both planned and unplanned restarts of your Jenkins master;
- **Pausable**: Pipelines can optionally stop and wait for human input or approval before completing the jobs for which they were built;
- **Versatile**: Pipelines support complex real-world CD requirements, including the ability to fork or join, loop, and work in parallel with each other;
- **Efficient**: Pipelines can restart from any of several saved checkpoints;
- **Extensible**: The Pipeline plugin supports custom extensions to its DSL (domain scripting language) and multiple options for integration with other plugins.

Jenkins Workflow

Development



Production

AXAMIT

Pipeline Benefits

The main feature of the Pipeline is that it’s code.

It’s written in specific file – Jenkinsfile, which is placed in project root and contains scripts that use a Pipeline DSL (domain-specific language) based on the Groovy programming language.

The are 2 styles of writing the Jenkins file -

Declarative &Imperative

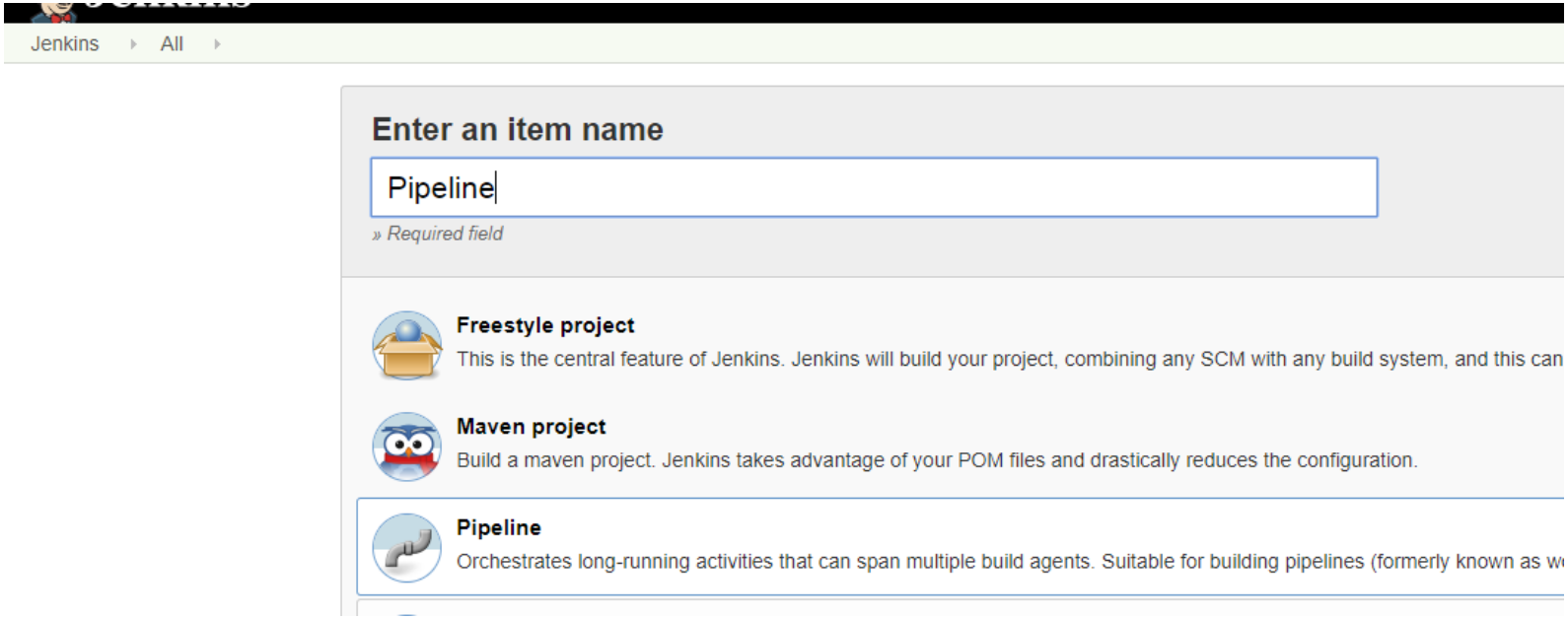
https://gist.github.com/abtris/e3e403d9b8cea31c66ccb67ae4c7f3f5

https://habr.com/post/324688/

Our Jenkinsfile:
https://gist.github.com/NikitaMitroshin/26f45425e2a134d49a16a20499c6cbe3

Configure Build Pipeline

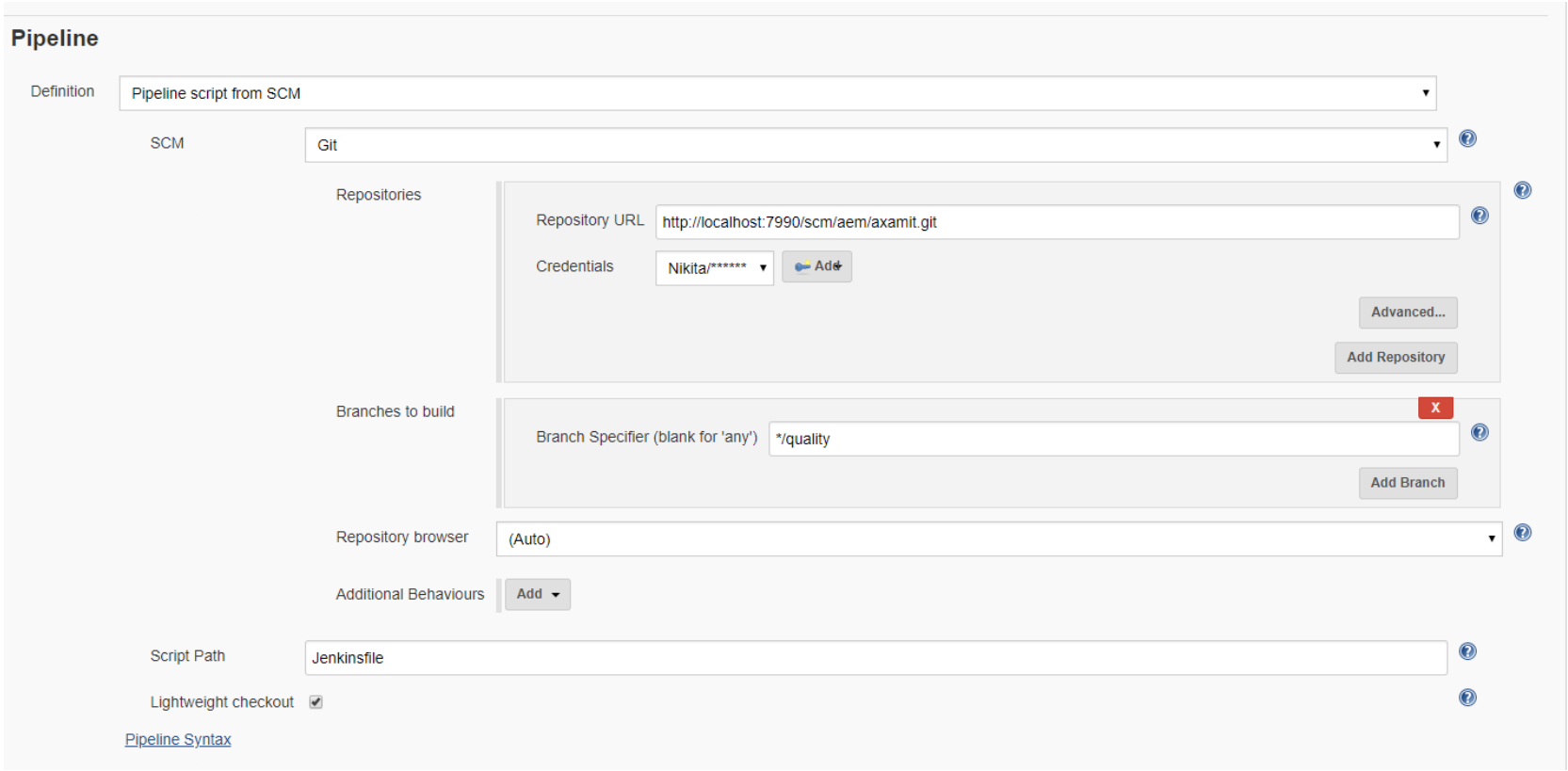
Jenkins – New Item – Pipeline



AXAMIT

Configure Build Pipeline

Pipeline configuration



AXAMIT

- Back to Dashboard
- **Status**
- Changes
- Build Now
- Delete Pipeline
- Configure
- Full Stage View
- Rename
- Pipeline Syntax

Build History trend

find x

#47	Sep 25, 2018 4:38 PM
#46	Sep 25, 2018 3:26 PM
#45	Sep 25, 2018 3:21 PM
#44	Sep 25, 2018 3:17 PM
#43	Sep 25, 2018 3:11 PM
#42	Sep 25, 2018 9:31 AM
#41	Sep 25, 2018 12:36 AM
#40	Sep 25, 2018 12:29 AM
#39	Sep 25, 2018 12:03 AM
#38	Sep 24, 2018 11:51 PM
#37	Sep 24, 2018 11:48 PM
#36	Sep 24, 2018 11:44 PM

Pipeline First Pipeline

Recent Changes

Stage View

	Declarative: Checkout SCM	Compile & Test Stage	Deployment To QA	Create Jira ticket	Continue Deployment?	Merge Quality To Master	Deployment To PROD	Declarative: Post Actions
Average stage times: (Average full run time: ~6min 12s)	4s	23s	24s	1s	410ms	6s	15s	1s
#47 Sep 25 16:38 No Changes	5s	30s	35s	1s	483ms (paused for 25s)	10s	26s	2s
#46 Sep 25 15:26 No Changes	4s	20s	21s	1s	383ms (paused for 8min 19s)	10s	35s	1s
#45 Sep 25 15:21 No Changes	3s	20s	20s	1s	413ms (paused for 1min 11s)	2s failed	131ms failed	1s
#44 Sep 25 15:17 1 commit	5s	21s	20s	1s	364ms (paused for 45s)	2s failed	137ms failed	1s

Permalinks

AXAMIT

That’s it!

Thank you

AXAMIT