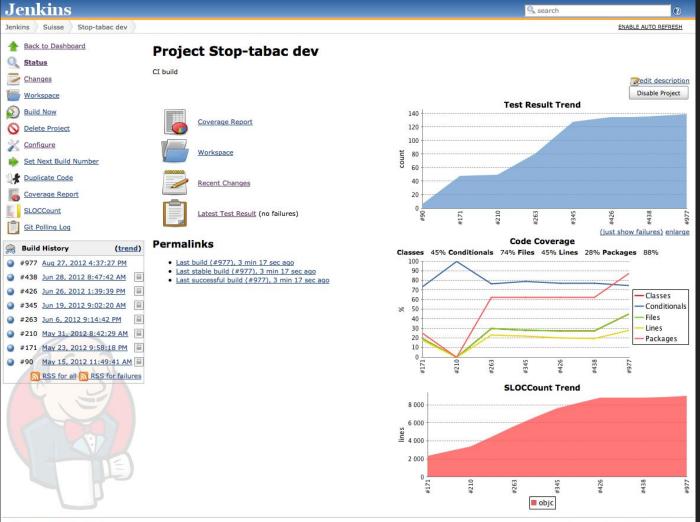
# Continuous Integration





Jenkins

#### Jenkins Installation

#### Java:

```
sudo apt update
sudo apt install default-jre
```

#### Python:

```
sudo apt install python3-pip
```

#### Jenkins Installation

Jenkins: (https://jenkins.io/doc/book/installing/)

```
wget -q -0 - https://pkg.jenkins.io/debian/jenkins.io.key |
sudo apt-key add -
sudo sh -c 'echo deb https://pkg.jenkins.io/debian-stable
binary/ > /etc/apt/sources.list.d/jenkins.list'
sudo apt-get update
sudo apt-get install jenkins
```

#### Jenkins Setup

Connect to Jenkins: http://localhost:8080/

If jenkins is not started run:

systemctl start jenkins

Set a password!

Install Plugins:

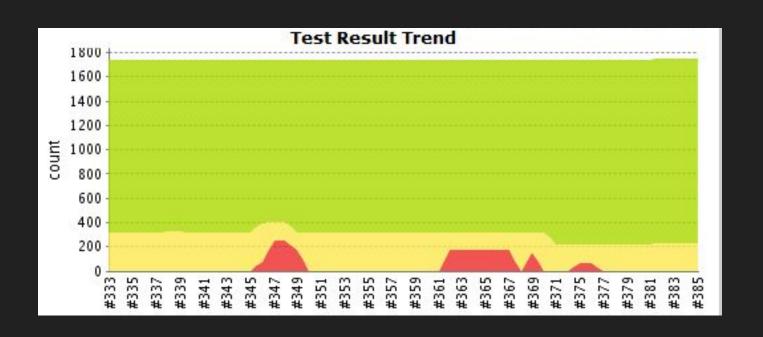
Cobertura Plugin (code coverage)

Violations plugin (lint)

## Jenkins Build Configuration

- 1. New item
- 2. Import your git project (otherwise https://github.com/pallets/flask.git)

## Run Unit tests



## Run Unit tests Run Unit tests (Build/Execute shell)

```
PYENV HOME=$WORKSPACE/.pyenv/
# Create virtualeny and install necessary packages
virtualenv -p python3 --no-site-packages $PYENV HOME
. $PYENV HOME/bin/activate
pip3 install --quiet pytest
pip3 install --quiet $WORKSPACE
# run unit tests
pytest --junitxml=testresults.xml tests
```

deactivate

This is the place where you have to adjust the build script to your project to successfully run pytest

#### Run Unit tests Run Unit tests

```
PYENV HOME=$WORKSPACE/.pyenv/
```

```
# Create virtualenv and install r
virtualenv -p python3 --no-site-r
. $PYENV HOME/bin/activate
```

```
pip3 install --quiet pytest
pip3 install --quiet $WORKSPACE
# run unit tests
pytest --junitxml=testresults.xml tests
deactivate
```

#### Publish JUnit test result report

Allow empty results

Test report XMLs

testresults.xml

testresults.xml' doesn't mat

Fileset 'includes' setting that speci
reports/\*.xml'. Basedir of the filese

Retain long standard output/er

Health report amplification factor

1.0

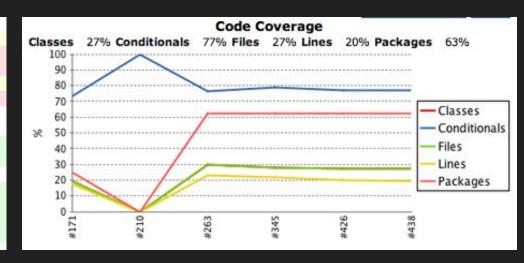
1% failing tests scores as 99% he

This is the place where you have to adjust the build script to your project to successfully run pytest

Do not fail the build on empty

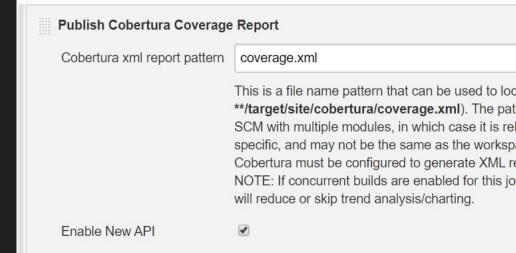
#### Code coverage

```
# if set, let env vars override previous values
957
                  if "FLASK ENV" in os.environ:
958 1
                      self.env = get_env()
959 0
                      self.debug = get_debug_flag()
960 0
                  elif "FLASK_DEBUG" in os.environ:
961 1
962 0
                      self.debug = get debug flag()
963
              # debug passed to method overrides all other sources
964
              if debug is not None:
965 1
                  self.debug = bool(debug)
966 1
967
968 1
              host = "127.0.0.1"
             port = 5000
969 1
970 1
              server name = self.config.get("SERVER NAME")
971 1
              sn host, sn port = None, None
972
```



# Code coverage

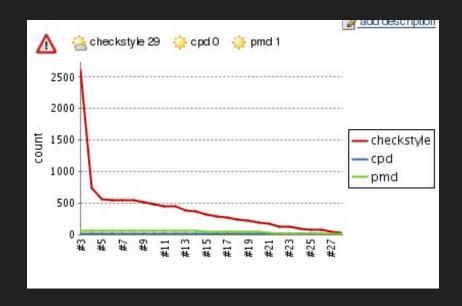
```
# run unit tests
pytest -cov=flask --cov-branch --cov-report xml:coverage.xml
    --junitxml=testresults.xmltests
```



## Style Warnings and Violations

```
IInally:
 240
                 rv = app ctx stack.pop()
             assert rv is self, "Popped wrong app context.
 241
 242
             appcontext popped.send(self.app)
 243
 244
         def enter (self):
 245
             self.push()
 246
             return self
 247
A 248
               exit (self, exc type, exc value, tb):
             self.pop(exc value)
 249
 250
 251
             if BROKEN PYPY CTXMGR EXIT and exc type is not None:
 252
                 reraise(exc type, exc value, tb)
 253
 254

↑ 255 class RequestContext(object):
```



## Style Warnings -- lint

pylint -f parseable src/flask | tee pylint.out

