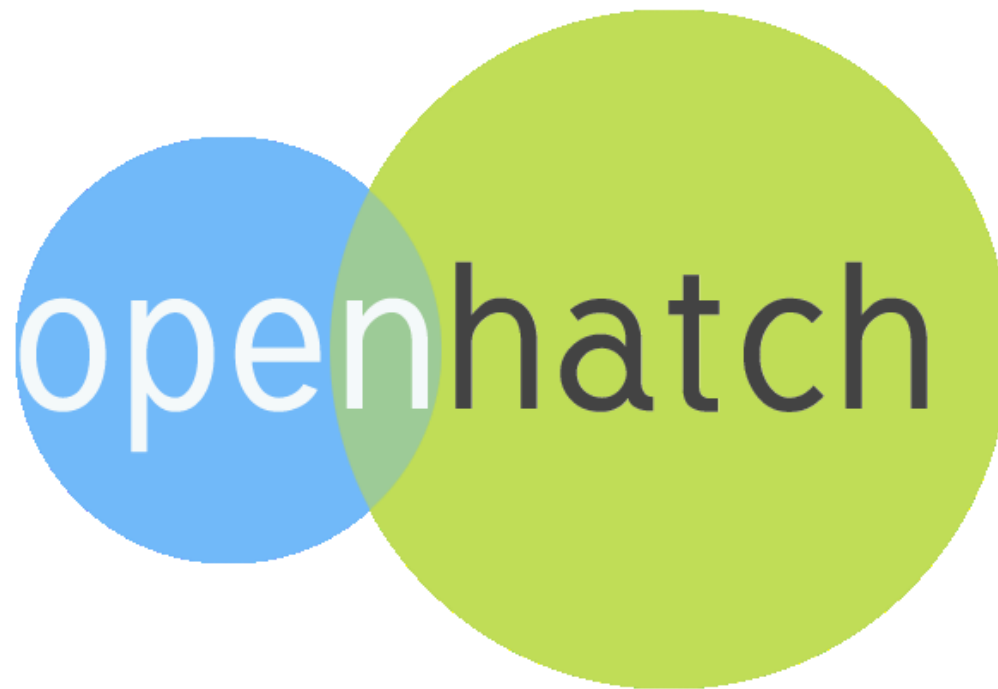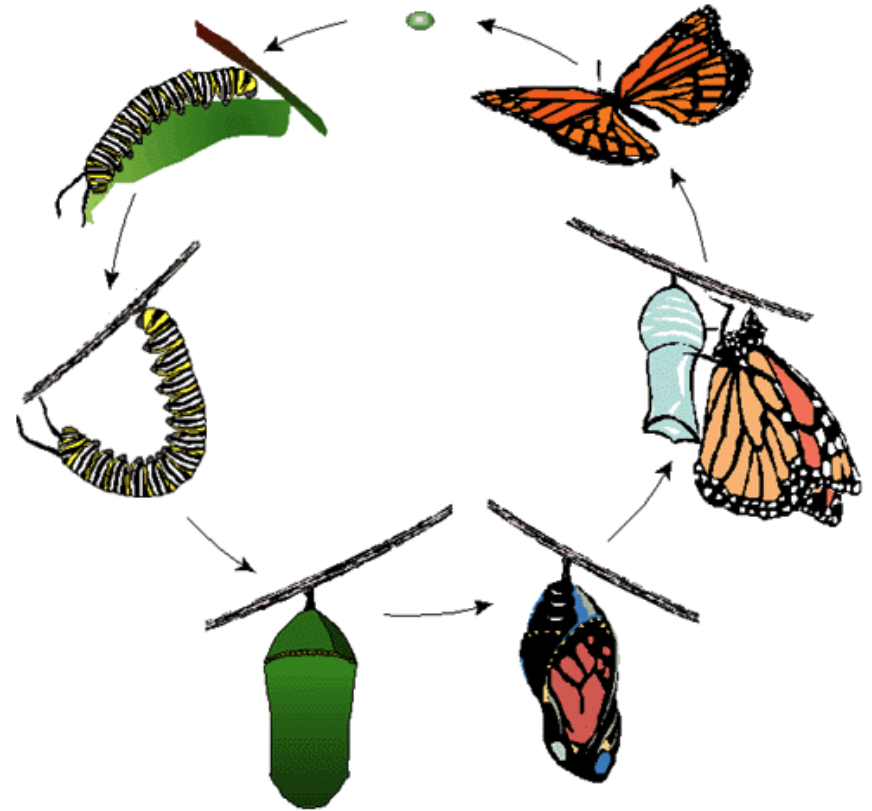# Contribute with me! Getting started with free software development
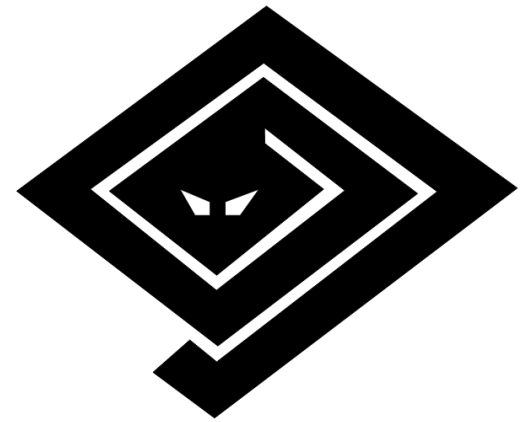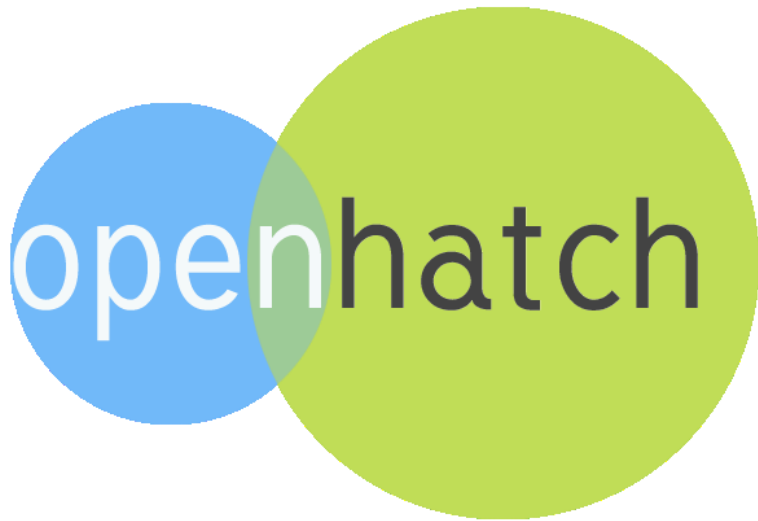
This talk

- Why?
- Ways to contribute
- Life cycle of a bug
- Development tools
- Communication
- Next steps

Demos!

Me, briefly

@jessicamckellar
http://jesstess.com

Why contribute to free software?

- Give back to the community
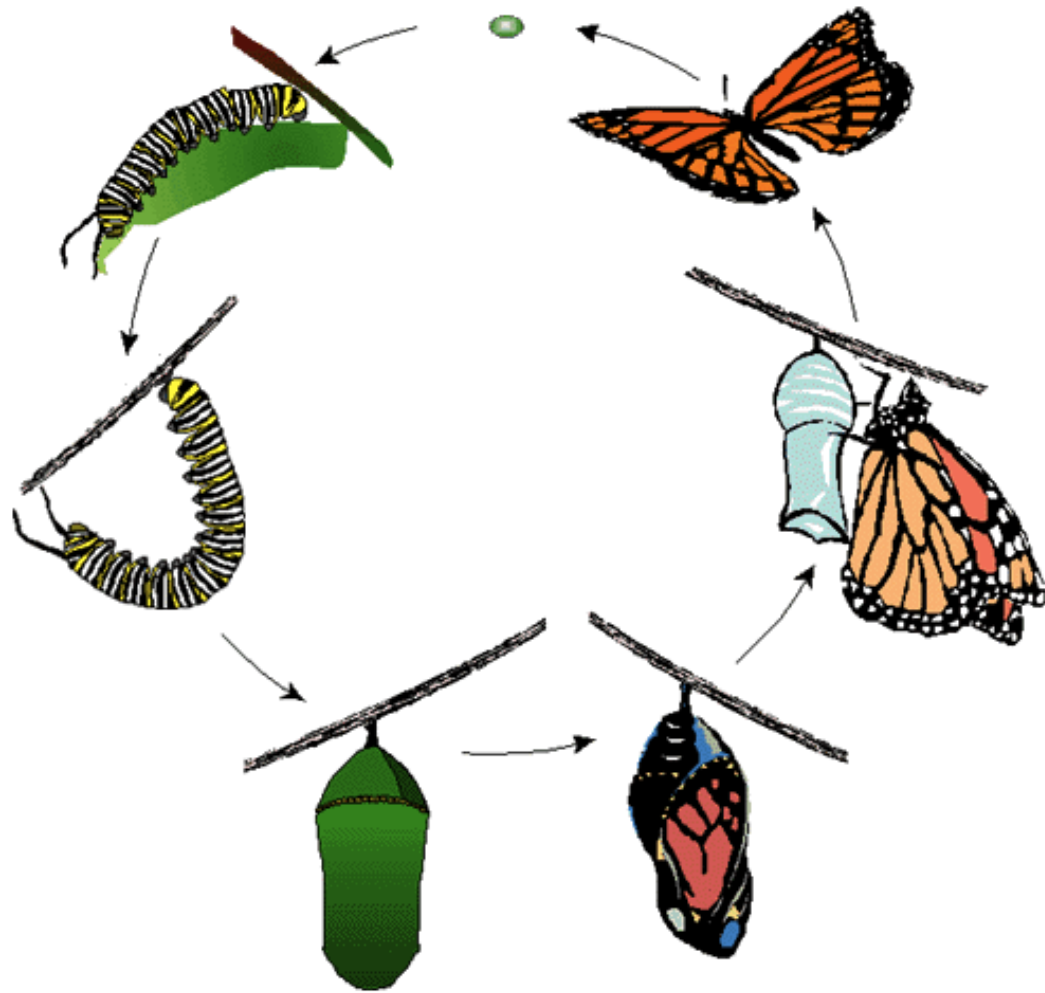- People
- Education
- Work
- Fun

Project components

And the many ways to contribute

Life cycle of a bug

- Report
- Triage
- Patch
- Testing
- Review
- Resolution

The tools of free software development

Issue trackers

Report

Triage

Patch

Testing

Review

Resolution

python-twitter
A python wrapper around the Twitter API

Project Home   Downloads   Wiki   **Issues**   Source

New issue   Search   Open issues ▾   for [   ]

tips   Subscriptions

ID ▾	Type ▾	Status ▾	Priority ▾	Milestone ▾	Owner ▾	Summary + Labels
13	Defect	Accepted	Medium	----	----	Patch: twisted supp
16	Defect	Accepted	Critical	----	bear42	OSError thrown fro accessed from non
27	Defect	Accepted	Medium	----	----	Support all availabl (with fix)
28	Defect	Accepted	Medium	dev	----	Proxy support missi
29	Defect	Accepted	Medium	dev	----	Proxy authenticatio
33	Enhancement	Accepted	Medium	----	----	python-twitter shoul
38	Enhancement	New	Medium	----		Extended version o
43	Enhancement	Accepted	Medium	----	----	get rid of all those j
47	Defect	New	Medium	----	----	Get followers for an
51	Defect	Accepted	Medium	----	----	Social Graph Metho

Demo!

Sharing changes:
diff and patch

```
 from wall import Wall
-from effects import Effects
+import effects

@@ -20,7 +20,12 @@ if __name__ == "__main__":

         wall = Wall(opts.width, opts.height)

-        for effect in Effects:
+        if args:
+            effects_to_run = [getattr(effects, a)
+        else:
+            effects_to_run = effects.Effects
+
+        for effect in effects_to_run:
            new_effect = effect(wall)
            print new_effect.__class__.__name__
```

Report

Triage

Patch

Testing

Review

Resolution

Demo!

Revision control

git — the fast version control system

Report

Triage

Patch

Testing

Review

Resolution

- Compare with Wikipedia

- Managing changes / history

- Collaborative progress

Demo!

Communication

Report
Triage
Patch
Testing
Review
Resolution

- Issue trackers
- Mailing lists
- IRC

- Where to find answers
- How to ask questions

```
Development of Twisted (<http://twistedmatrix.com/>)
04:49 < glyph> jonathanj: heh.  That's syntactically valid but not correct
               :)
04:49 < glyph> jonathanj: You just say L{Deferred} firing L{Foo}
04:50 < jonathanj> how does one document AMP command arguments, responses
                   and errors?
04:50 < glyph> jonathanj: read the source code for the Command class :-\
04:50 < glyph> jonathanj: talk to teratorn about possible future options
               though                        IRC
04:52 < jonathanj> ugh
05:01 < kenaan> glyph r35696 trunk/twisted A(5880.bugfix) M(process.py):
                Merge TIOCNOTTY-5880. ...
05:01 < kenaan> glyph closed [#5880] - twisted.internet.process.PTYProcess
                throws "OSError: [Errno 6] Device not configured" on
                Mountain Lion
05:22 < glyph> therve: I am very excited to give this a passing review
05:23 < glyph>  ↳ Sat Sep 15 02:21:53 PDT 2012 (★trial -j 10 twisted) (32
               seconds elapsed)
05:23 < glyph>  ↳ Sat Sep 15 02:23:09 PDT 2012 (★trial twisted) (66
               seconds elapsed)
05:30 < glyph> therve: still ready for review?
05:38 < glyph> All right I guess I'll have a look in the morning.
06:09 < exarkun> it is the morning
06:32 < kenaan> exarkun r35697 A(branches/xmpp_client.py-3270-3/):
                Branching to 'xmpp_client.py-3270-3' ...
06:38 < therve> 'morning exarkun :)
[08:44] [jesstess(+i)] [12:#twisted-dev(+nt)] [Act: 3,4,5,6,7,8,9,10,11]
```
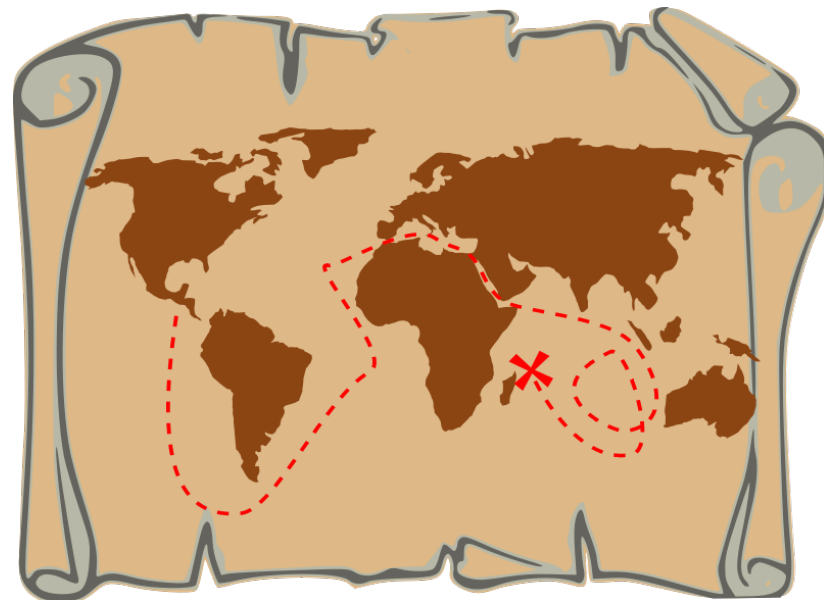
We think we found a bug!

Places to look for answers

- Project documentation

  - Installation guides, tutorials, FAQ

- Googling for error messages

- StackOverflow, LinuxQuestions.org

Places to ask questions

- StackOverflow, LinuxQuestions.org

- Mailing lists

- IRC

  - Pastebin

- Issue tracker

- School computing club

- Local user groups

How to effectively ask for help

- A Short, Self Contained, Correct, Example
- Steps to reproduce
- Input
- Expected output
- Actual output
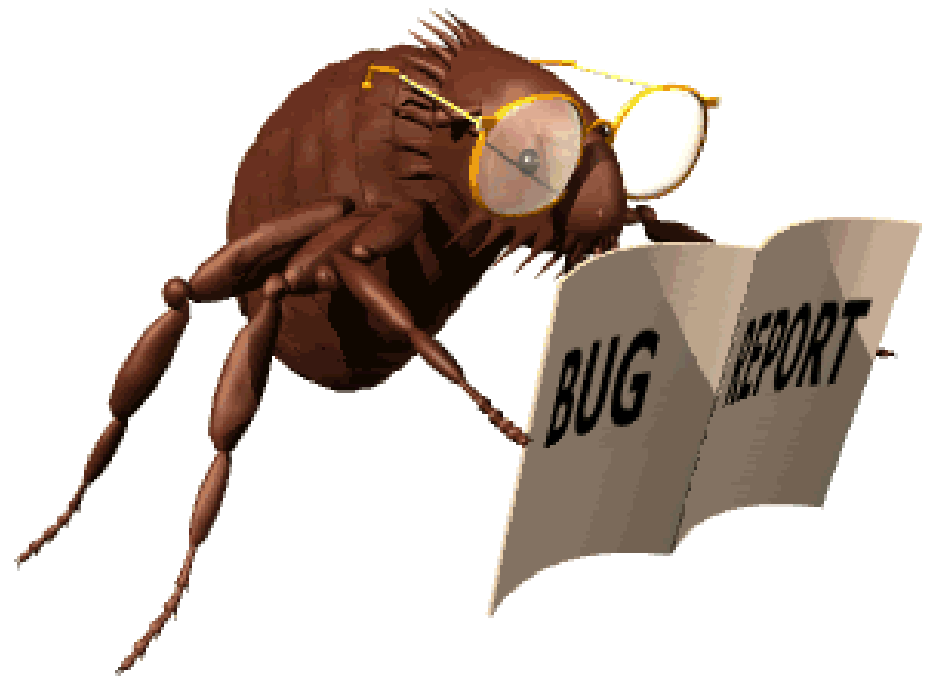- Software and operating system versions

Mailing lists

- Is this a question for -dev or -users?

- Be polite, write like this is for school/work

- Be specific

- Prepare a Short, Self Contained, Correct, Example

IRC

- Be polite, write like this is for school/work

- Be specific

- Prepare a Short, Self Contained, Correct, Example

- Be **patient**. What time is it in Australia right now?

Issue tracker

- Search for existing issues
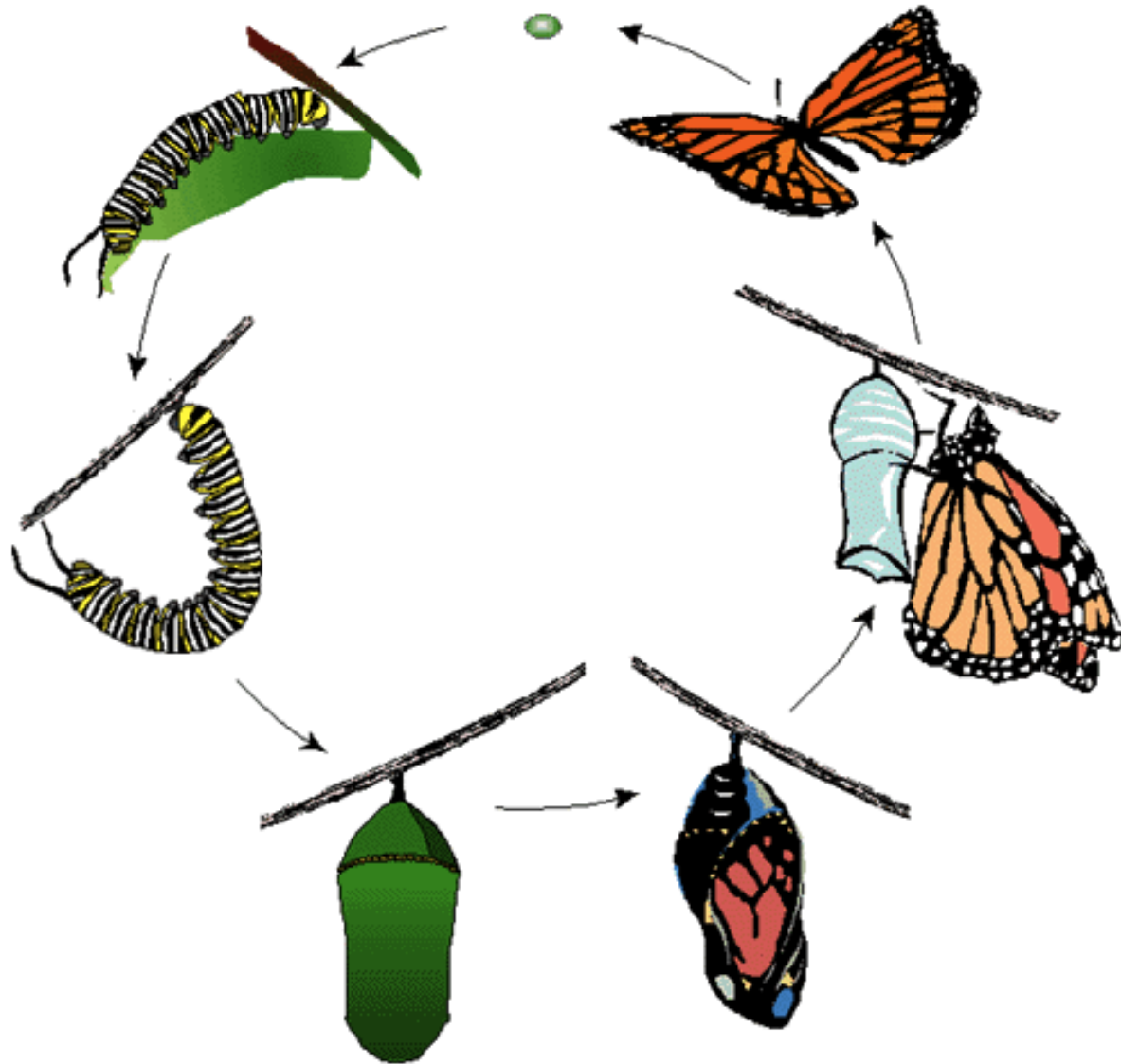- Read contributor documentation on categorizing and triaging tickets

How to write a good bug report

- A Short, Self Contained, Correct, Example
- Steps to reproduce
- Input
- Expected output
- Actual output
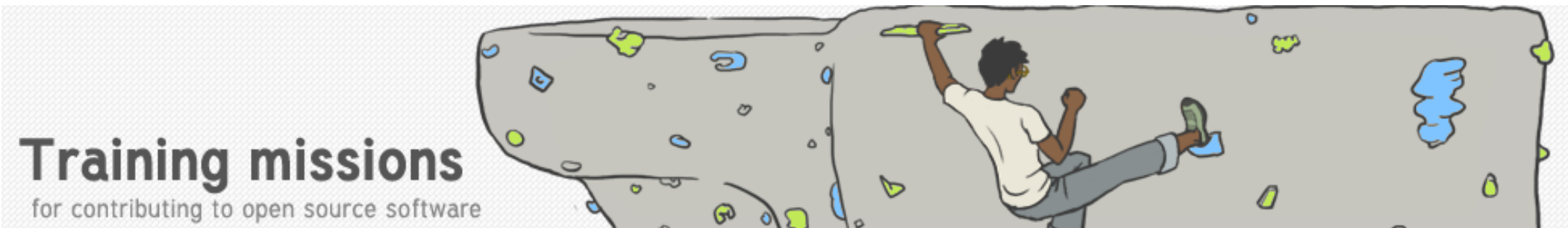- Software and operating system versions

Life cycle of a bug

- Report
- Triage
- Patch
- Testing
- Review
- Resolution

OpenHatch training missions

Training missions
for contributing to open source software

Practice contributing to a project

These missions let you practice sharing a patch with a maintainer.

Using Subversion

Learn how to interact with projects that use the Subversion version control system.

Go »

Using git

Learn how to interact with projects that use the Git version control system.
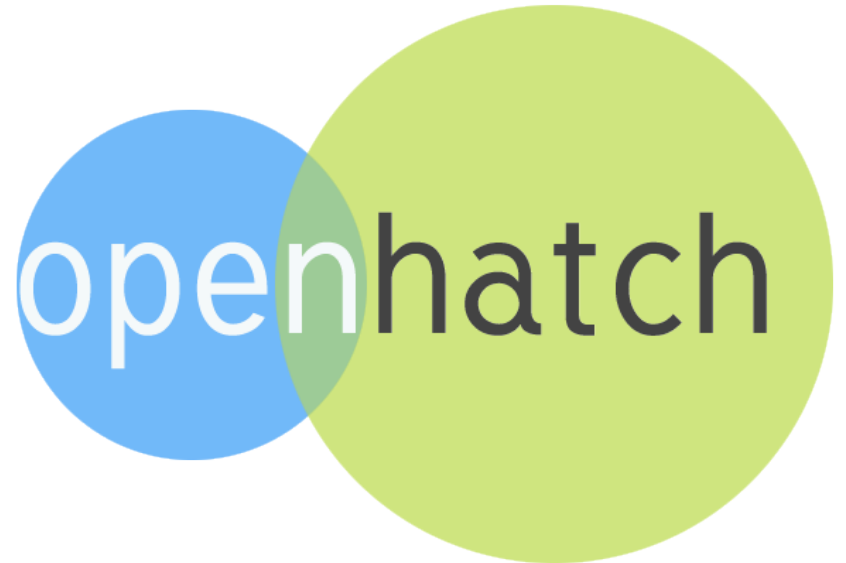
Go »

Using diff and patch

Learn how to use diff and patch to submit changes to a project or apply others' changes.

Go »

http://openhatch.org/missions/

What's next?

- Find a project!
- OpenHatch.org
- #openhatch on Freenode

- Boston Python

http://meetup.bostonpython.com

What's next?

- Python Core Mentors
  http://pythonmentors.com/

- Debian Mentors
  http://lists.debian.org/debian-mentors/

- Fedora Mentors
  http://fedoraproject.org/wiki/Mentors

- Google Summer of Code