

3/06 - 3/20

# TEAM: GIT CONFUSED SPRINT 4

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SCRUM MASTER – ROBERT KUPFNER

DEV TEAM – GIL LEIBOVICH

DEV TEAM – MARC INOUE

DEV TEAM – ZAKHADDIN KHALIDOV

DEV TEAM – EZEQUIEL LOPEZ HERNANDEZ

DEV TEAM – CHRIS JOHNSON

# USER STORIES

- 1) In order to understand the call to the virtual method, I need to decode the constant pool.
- 2) As a developer, when println is called with an integer, I need to echo the int to the screen because this is the expected behavior.
- 3) As a developer, I need to implement the remaining integer opcodes.

# STORY POINTS

- Create a method to retrieve the CP. (10)
- Move the working `get_const_pool()` method to our dev branch, and make sure it still works. (2)
- Read in the CP and save to a list/tuple. (5)
- Create a dictionary to store the CP flags and create methods to populate a new list with the decoded CP. (8)
- If the CP flag is a string, translate. (6)
- Create simple Java files to test integer operations. (2)
- Code coverage over 90%. (1)

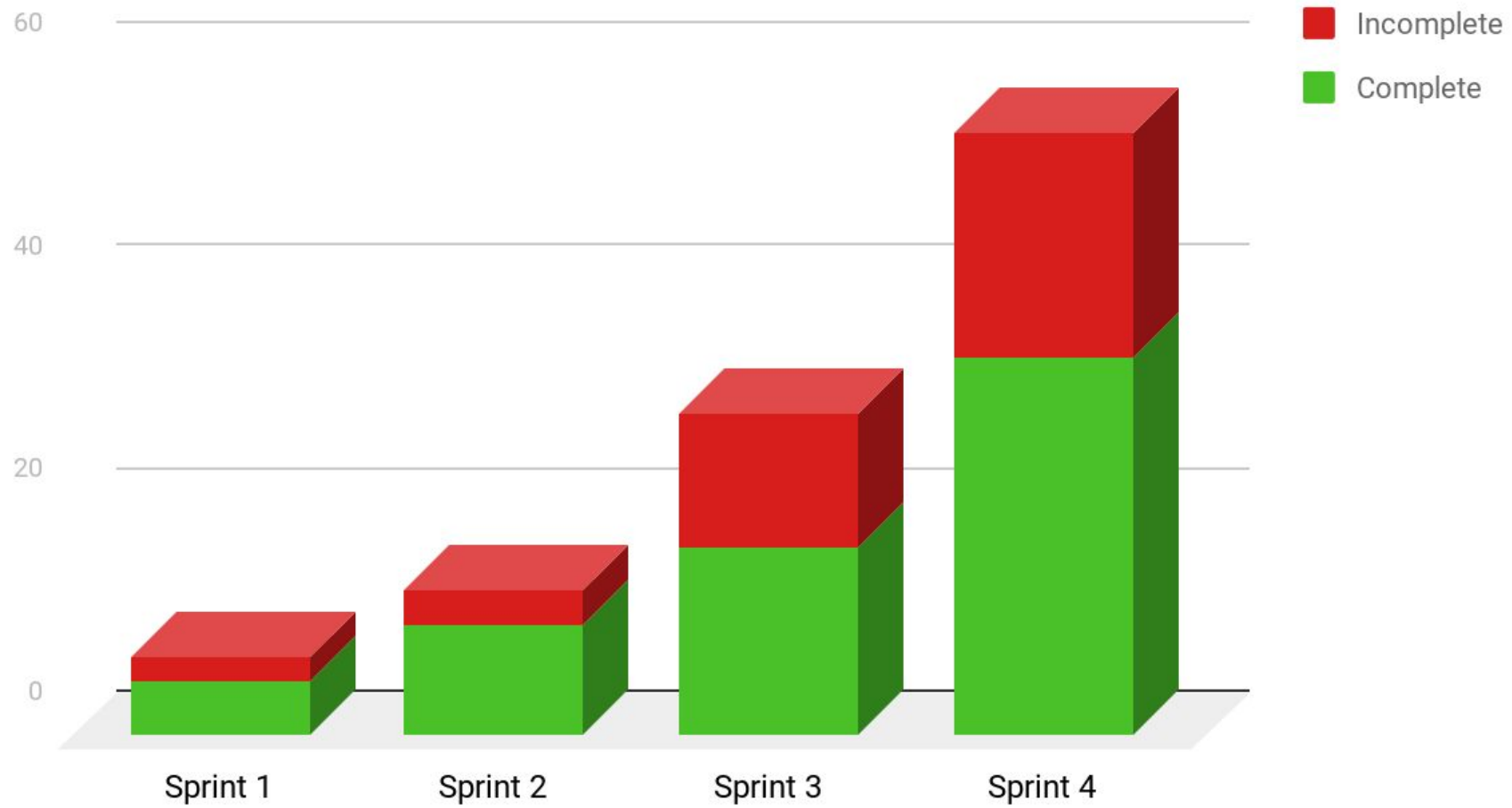
## Incomplete:

- Implement `invokevirtual` and `bipush`. (8)
- Pull `.class` method bytes properly. (8)
- Clean up Constant Pool method. (1)
- Jasmin test file implementation. (3)

The image features a dark gray background with a subtle gradient. In the four corners, there are decorative elements resembling circuit board traces or neural network connections. These elements consist of thin, light blue lines that branch out and terminate in small circles, creating a symmetrical, geometric pattern around the central text.

# DEMONSTRATION OF A RUNNING PROGRAM

## Velocity (10) prev. (6)



The image features a dark gray background with stylized, light blue circuit-like lines in the corners. These lines consist of straight segments and small circles, resembling a printed circuit board or a network diagram. The lines are positioned in the top-left, top-right, bottom-left, and bottom-right corners, framing the central text.

# SYSTEM DEVELOPMENT LIFE CYCLE STATISTICS

# SDLC STATISTICS

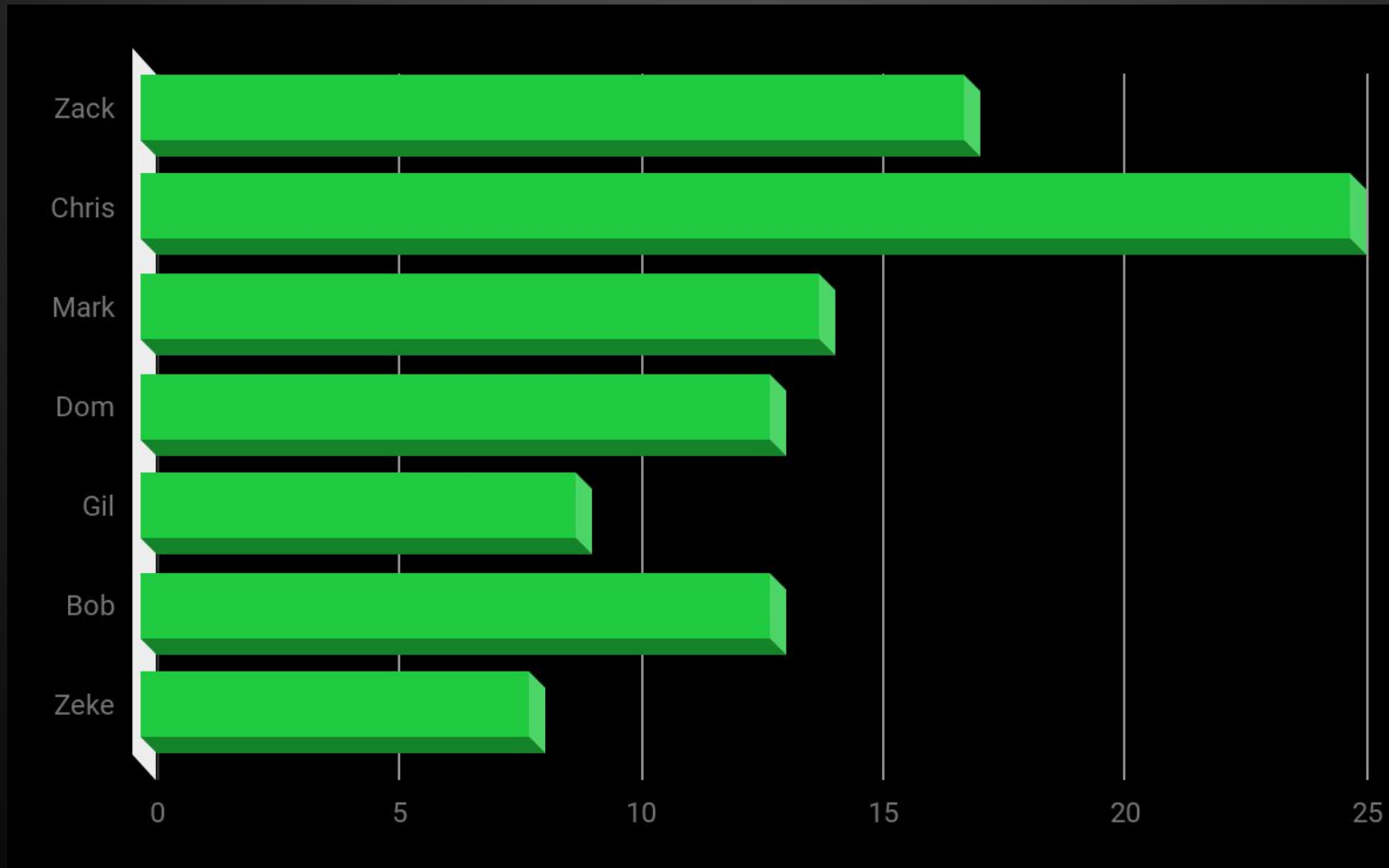
## Sprint Backlog (12)

- Implement InvokeVirtual and Bipush. (8)
- Clean up Constant Pool Method (1)
- Jasmin test file (3)

## Project Backlog (11)

- Write the remaining Opcode methods.
- Pull Method Opcodes from .class file correctly.

# Team Hours



\*additional 8 hrs each for 2hr Mon & Wed team meetings.



# CODE STATISTICS

```
▶ 1 Worker information worker_info
▶ 6 Build system information system_info
413
414
▶ 415 $ git clone --depth=50 --branch=develop https://github.com/git-confused- git.checkout 0.65s
419
420
421 Setting environment variables from repository settings
422 $ export SONAR_TOKEN=[secure]
423 $ export token=[secure]
424
425 $ source ~/virtualenv/python3.6/bin/activate 0.01s
426 $ python --version
427 Python 3.6.3
428 $ pip --version
429 pip 9.0.1 from /home/travis/virtualenv/python3.6.3/lib/python3.6/site-packages (python 3.6)
▶ 430 $ pip install codecov install 2.62s
▶ 447 SonarCloud addon sonarcloud.addon
470 $ coverage run -m unittest 0.57s
471 .....
472 -----
473 Ran 39 tests in 0.027s
474
475 OK
476 The command "coverage run -m unittest" exited with 0.
477
478 $ coverage xml -i 2.88s
479 The command "coverage xml -i" exited with 0.
480
481
▶ 482 $ codecov after_success 1.02s
508
509 Done. Your build exited with 0.
Top
```

# CodeClimate (static)

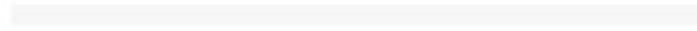
<https://codeclimate.com/github/git-confused-team3/GitConfused>

## Breakdown

34 FILES



MAINTAINABILITY



TEST COVERAGE

## Codebase summary

MAINTAINABILITY



2 days

TEST COVERAGE



## Repository stats

CODE SMELLS

5

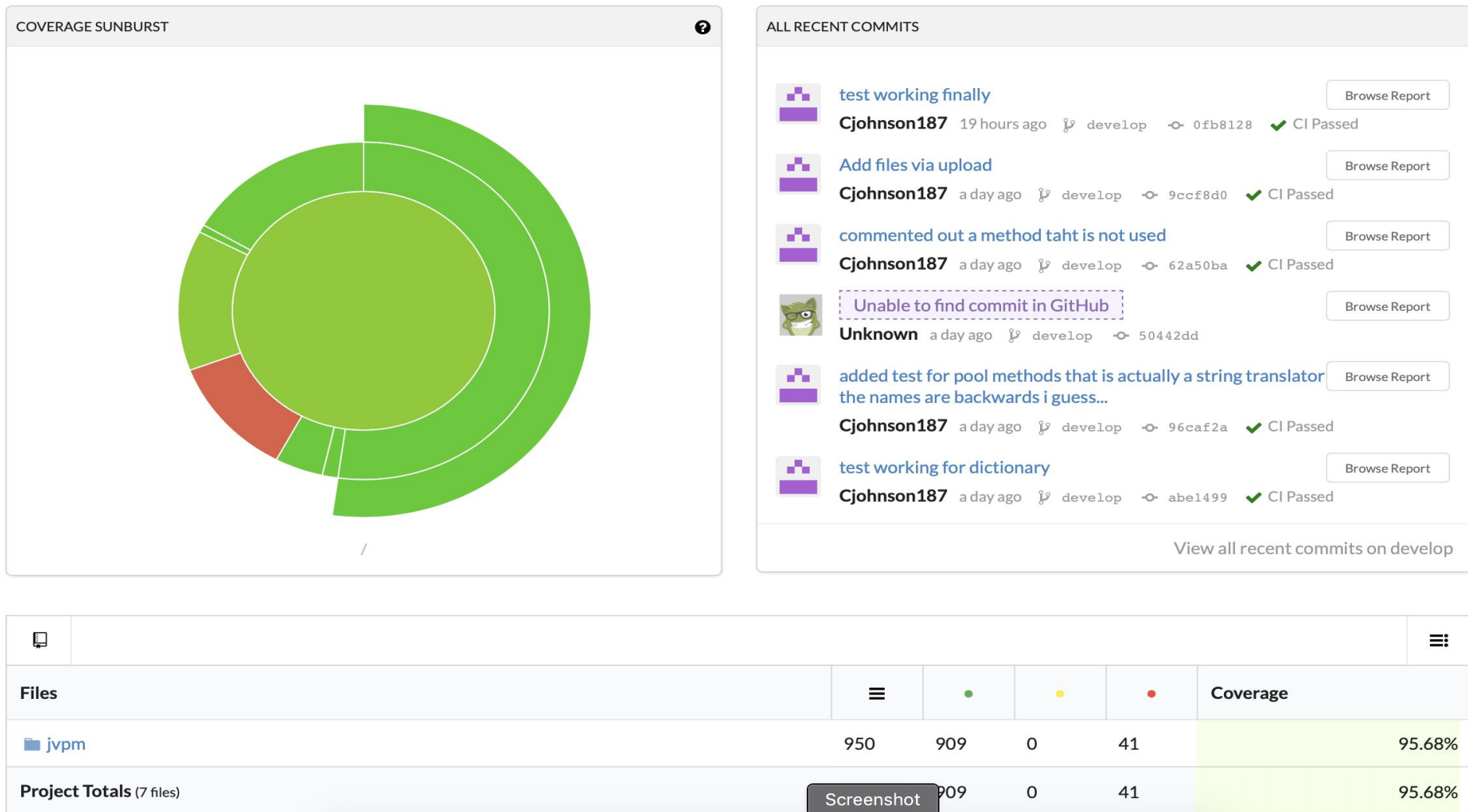
DUPLICATION

10

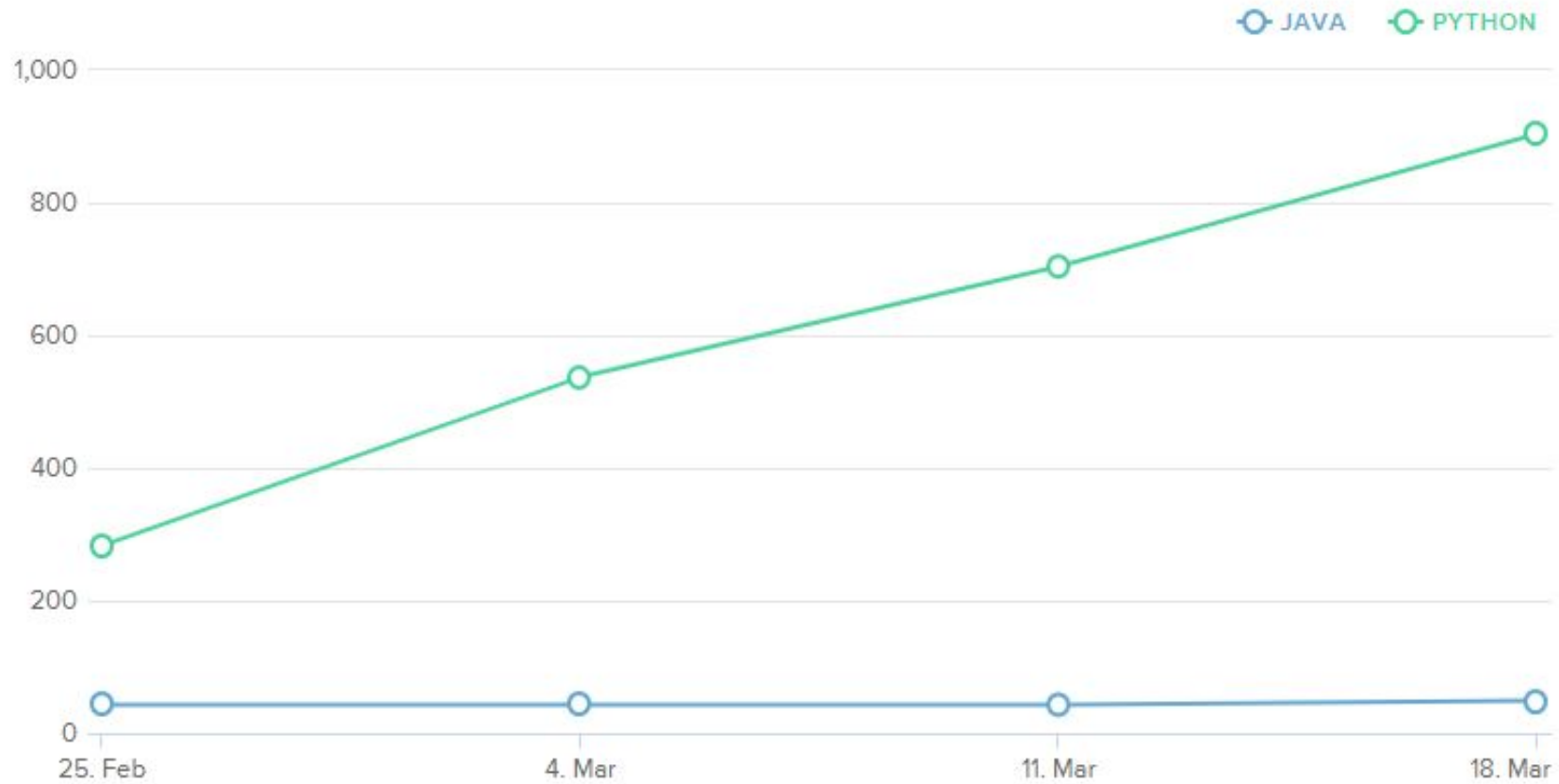
OTHER ISSUES

0

# CodeCov (static)



## Lines of code (LOC)



March 11, 2019 – March 18, 2019

Period: 1 week ▾

### Overview

  
4 Active Pull Requests

0 Active Issues

 4

Merged Pull Requests

 0

Proposed Pull Requests

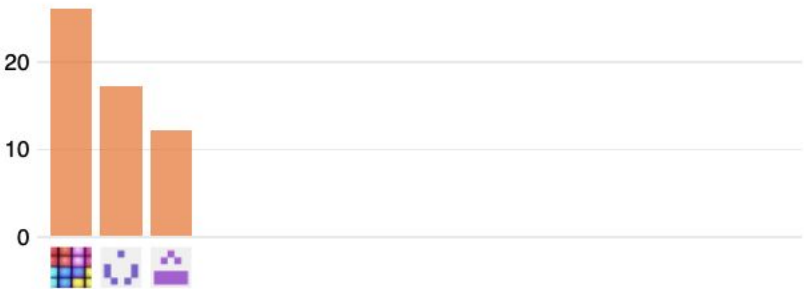
 0

Closed Issues

 0

New Issues

Excluding merges, **3 authors** have pushed **47 commits** to develop and **55 commits** to all branches. On develop, **9 files** have changed and there have been **840 additions** and **60 deletions**.



# Sprint Retrospective

## WHAT WENT WELL

- Many of the conversion methods were built in to python.
- Meeting with Luke was extremely helpful with reading the CP.
- Even though we had a blizzard we were able to come together and progress the project.
- Following SCRUM roles.
- Taking a few days to come with the plan instead of coding blindly right away.

## WHAT WENT POORLY

- Took us a while to figure out the tasks.
- Couple people did most of the coding.
- Breaking tasks down in a more efficient manner.

## WHAT ARE WE GOING TO START/STOP/CONTINUE DOING

- More discipline trying to plan more efficiently.
- Break down the User Stories more evenly based on work needed to complete.
- Split workload more evenly between the Dev team.
- Implement TDD.
- Continue our bi-weekly meetups.

# Team Contributions

Contributions to develop, excluding merge commits





```
class test_stack(unittest.TestCase):
    def test_is_empty(self):
        s = Stack()
        s.push(1)
        s.pop()
        self.assertTrue(s.is_empty())

    def test_push(self):
        s = Stack()
        s.push(2)
        s.push(3)
        v = s.pop()
        self.assertEqual(v, 3)

    def test_pop(self):
        s = Stack()
        s.push(3)
        s.push(2)
        s.push(4)
        s.push(0)
        a = s.pop()
        b = s.pop()

        self.assertEqual(a, 0)
        self.assertEqual(b, 4)

    def test_peek(self):
        s = Stack()
        s.push("hello")
        s.push("hi")
        self.assertEqual(s.peak(), "hi")
        s.pop()
```

```
class unittest_header(unittest.TestCase):
    def setUp(self):
        m = mock_open(read_data='CAFEBABE00000036000F')
        with patch('__name__ + '.open', m):
            self.cf = jvpm_opcodes.HeaderClass()

    def test_magic(self):
        self.assertEqual(self.cf.get_magic(), 'CAFEBABE')
        self.assertEqual(self.cf.get_minor(), 0)
        self.assertTrue(53 <= self.cf.get_major() <= 55)
        self.assertEqual(self.cf.get_const_pool_count(), 15)

class Test_Op_Methods(unittest.TestCase):
    def test_iadd(self):
        a = OpCodeMethods()

        a.stack.push(2)
        a.stack.push(1)
        a.iadd()
        b = a.stack.pop()
        self.assertEqual(b, 3)

    def test_iand(self):
        a = OpCodeMethods()

        a.stack.push(5)
        a.stack.push(3)
        a.iand()
        b = a.stack.pop()
        self.assertEqual(b, 1)

    def test_iconst_m1(self):
        a = OpCodeMethods()

        a.iconst_m1()
        b = a.stack.peak()
        self.assertEqual(b, -1)

        a.stack.push(5)
        self.assertEqual(a.stack.peak(), 5)
        self.assertNotEqual(a.stack.peak(), -1)
```