## https://github.com/AJ-Protzel/HW5-Black-Box

1. In test\_functions.py, 2 classes are used (ValidQ1, InvalidQ1), with two functions in each for test cases for equivalence partitioning and BVA boundaries.

```
a. Equivalent partition: -15(invalid), 15(valid), 60(invalid)

i. Condition: less than 1, more than 31
b. BVA: 0(invalid), 1(valid), 31(valid), 32(invalid)

i. Below: 0, 31

ii. Above: 1, 32
```

2. In test\_functions.py, 2 classes are used (ValidQ2, InvalidQ2), with two functions in each for test cases for equivalence partitioning and BVA boundaries.

```
a. Equivalent partition: ""(invalid), "aaaaaaaa"(valid), "aaaaaaaaaaaaaaaaaaaaaaaaaa"(invalid)

i. Condition: less than 7, more than 10
b. BVA: "aaaaaaa"(invalid), "aaaaaaaa"(valid), "aaaaaaaaaaa"(valid), "aaaaaaaaaaa"(invalid)

i. Below: 6, 10

ii. Above: 7, 11
```

- 3. In test\_functions.py, 2 classes are used (ValidQ3, InvalidQ3), with two functions in each for test cases for equivalence partitioning and BVA boundaries.
  - a. Equivalent partition: 10(invalid), 30(valid), 63(invalid), 67(valid), 90(invalid)

    i. Condition: less than 16 and 65, more than 70 and 60
    b. BVA: 15(invalid), 16(valid), 59(valid), 60(invalid), 65(invalid), 66(valid), 70(valid), 71(invalid)

    i. Below: 15, 59, 65, 70
- 4. The installation and execution is very simple and I did not run into trouble. (the screenshot show the first step but more was done on the program on github)

```
Black-box-testing-and-Random-testing$ pip install pbbt
Collecting pbbt
  Downloading https://files.pythonhosted.org/packages/32/5f/3bfe6181c381fd54
c7cbe374a5786ac2b10f0b802c63180bc7b98a6122ea/pbbt-0.1.6.tar.gz (46kB)
                                             | 51kB 3.3MB/s
Collecting PyYAML
  Downloading https://files.pythonhosted.org/packages/70/96/c7245e551b1cb496
bfb95840ace55ca60f20d3d8e33d70faf8c78a976899/PyYAML-5.4.1-cp38-cp38-manylinu
x1 x86 64.whl (662kB)
                                            | 665kB 7.1MB/s
Building wheels for collected packages: pbbt
Building wheel for pbbt (setup.py) ... done
Created wheel for pbbt: filename=pbbt-0.1.6-cp38-none-any.whl size=32192 s
ha256=f7f5c32cee6e471f7f6e17c6b6a5f96433673d74d678f095af339efe7291e2fd
  Stored in directory: /home/runner/.cache/pip/wheels/c1/ac/67/1a0284429bb5f
9d2d67614bd8644475553a8cdbd481b5165f5
Successfully built pbbt
Installing collected packages: PyYAML, pbbt
Successfully installed PyYAML-5.4.1 pbbt-0.1.6
                   using pip version 19.3.1; however, version 21.0.1 is availa
You should consider upgrading via the 'pip install --upgrade pip' command. 
~/Homework-5-Black-box-testing-and-Random-testing$ pbbt input.yaml --train
  PY: print-hello-world
   ("input.yaml", line 1)
  new test output
  Hello, World!
   Press ENTER to record, 's'+ENTER to skip, 'h'+ENTER to halt
```

5. Unit testing is black box if you write the tests before you make the function, meaning you do not know how the function will behave when given data. White box would be if you make the tests during or after the creation of the function, meaning you know how the function works and you have a testing bias.

(Twitter type social media)

- a. Black box:
  - i. Type in many characters into my post to test character limits.
  - ii. Try attaching multiple images to a single post.
- b. Unit testing:
  - i. Test that the post accepts a string of length 0-255