Assignment 1 - Trik, Guess the Data Structure, Flexible Spaces

COMP 321 - Programming Challenges

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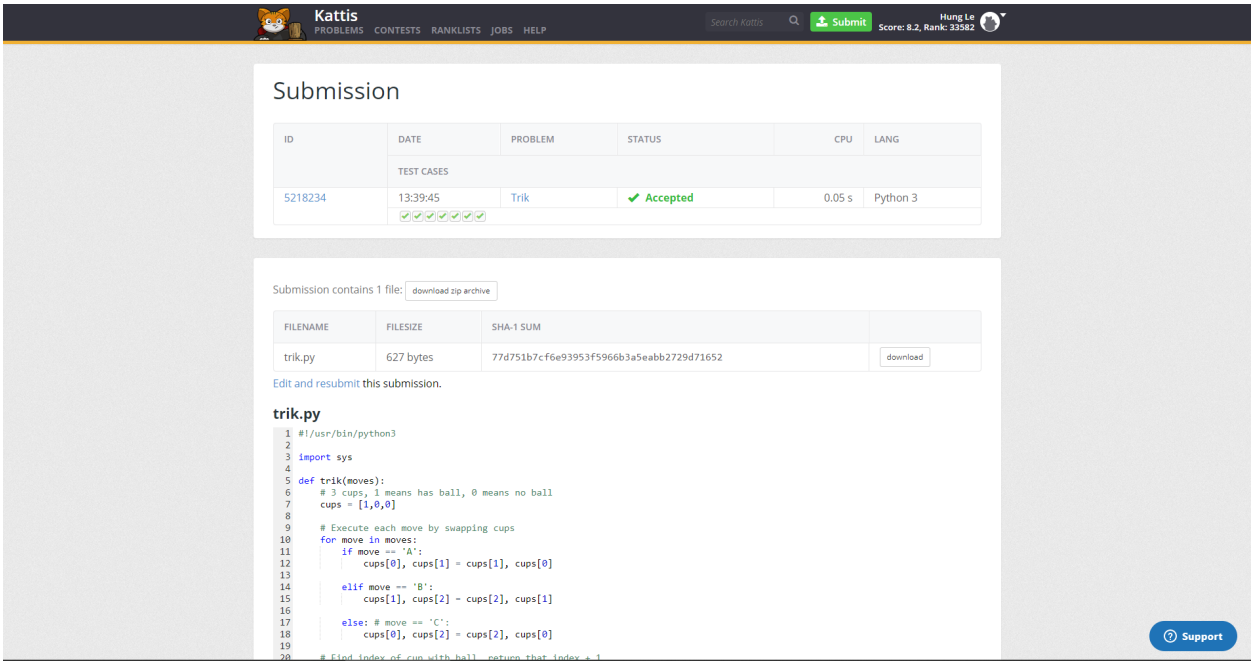
Date: January 22, 2020
Due date: January 29, 2020

Prof. David Meger
Winter 2020

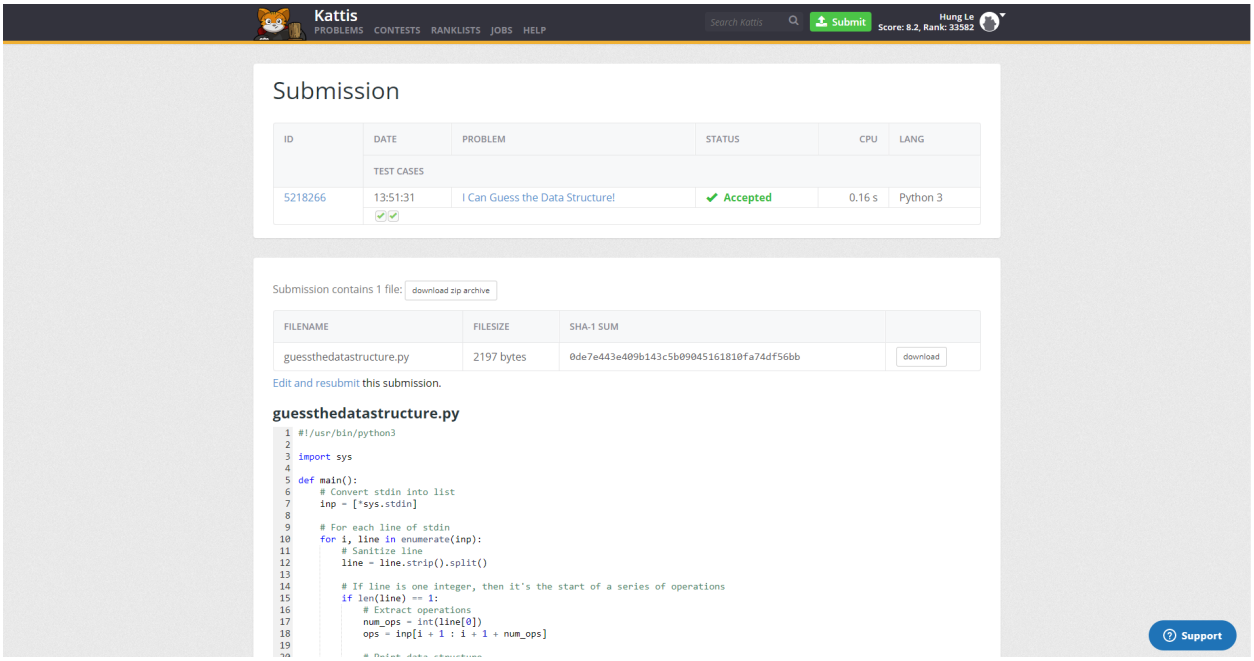
Note:

McGill got my name wrong. On MyCourses, it appears as Nhat Le, instead of Hung Le. Enrollment services will fix it soon.

Question 1: Trik



Question 2: Guess the Data Structure



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5218266	13:51:31	I Can Guess the Data Structure!	✔ Accepted	0.16 s	Python 3

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FILENAME	FILESIZE	SHA-1 SUM	
guessthedatastructure.py	2197 bytes	0de7e443e409b143c5b09045161810fa74df56bb	download

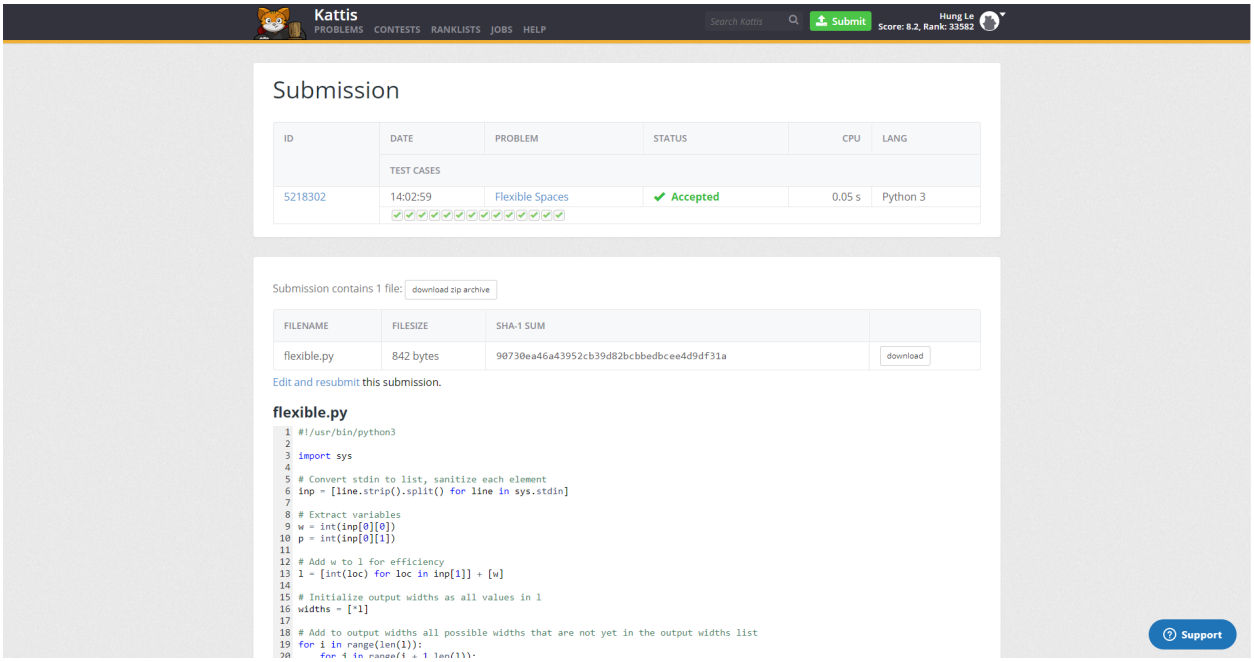
Edit and resubmit this submission.

guessthedatastructure.py

```
#!/usr/bin/python3

import sys

def main():
    # Convert stdin into list
    inp = [*sys.stdin]

    # For each line of stdin
    for i, line in enumerate(inp):
        # Sanitize line
        line = line.strip().split()

        # If line is one integer, then it's the start of a series of operations
        if len(line) == 1:
            # Extract operations
            num_ops = int(line[0])
            ops = inp[i + 1 : i + 1 + num_ops]
```

Support

Question 3: Flexible Spaces



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5218302	14:02:59	Flexible Spaces	✔ Accepted	0.05 s	Python 3

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FILENAME	FILESIZE	SHA-1 SUM	
flexible.py	842 bytes	90730ea46a43952cb39d82bcbbedbcee4d9df31a	download

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flexible.py

```
#!/usr/bin/python3

import sys

# Convert stdin to list, sanitize each element
inp = [line.strip().split() for line in sys.stdin]

# Extract variables
w = int(inp[0][0])
p = int(inp[0][1])

# Add w to l for efficiency
l = [int(loc) for loc in inp[1]] + [w]

# Initialize output widths as all values in l
widths = [*l]

# Add to output widths all possible widths that are not yet in the output widths list
for i in range(len(l)):
```

Support