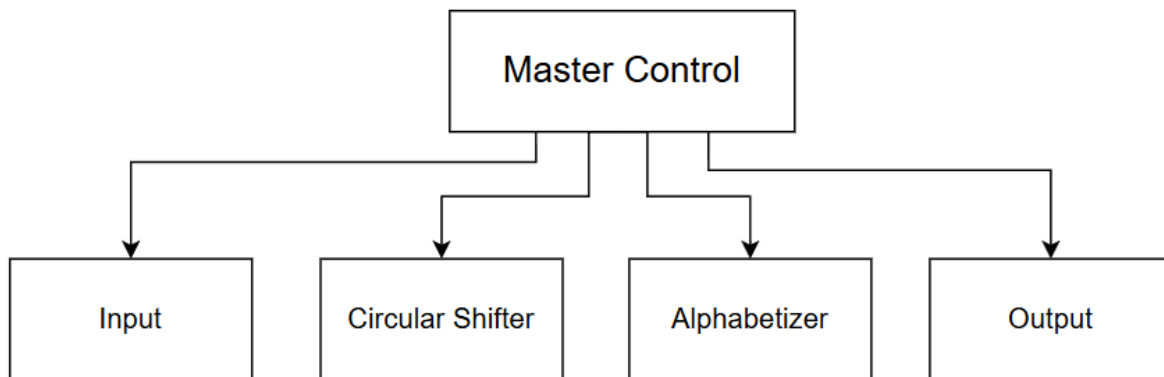


Chloe Smith  
Mika Collins  
Wyatt King

## Assignment 2

Diagram for Main Program and Subroutine Design:



```
KWICMainProgramSubroutine.py X
KWICMainProgramSubroutine.py > main
4 def user_input():
12     return text_list
13
14
15 def circular_shifter(text_list):
16     shifted_list = []
17
18     for text in text_list:
19         words = text.split()
20
21         for i in range(len(words)):
22             shifted = words[i:] + words[:i]
23             shifted_list.append(" ".join(shifted))
24
25     return shifted_list
26
27 def alphabetizer(shifts):
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

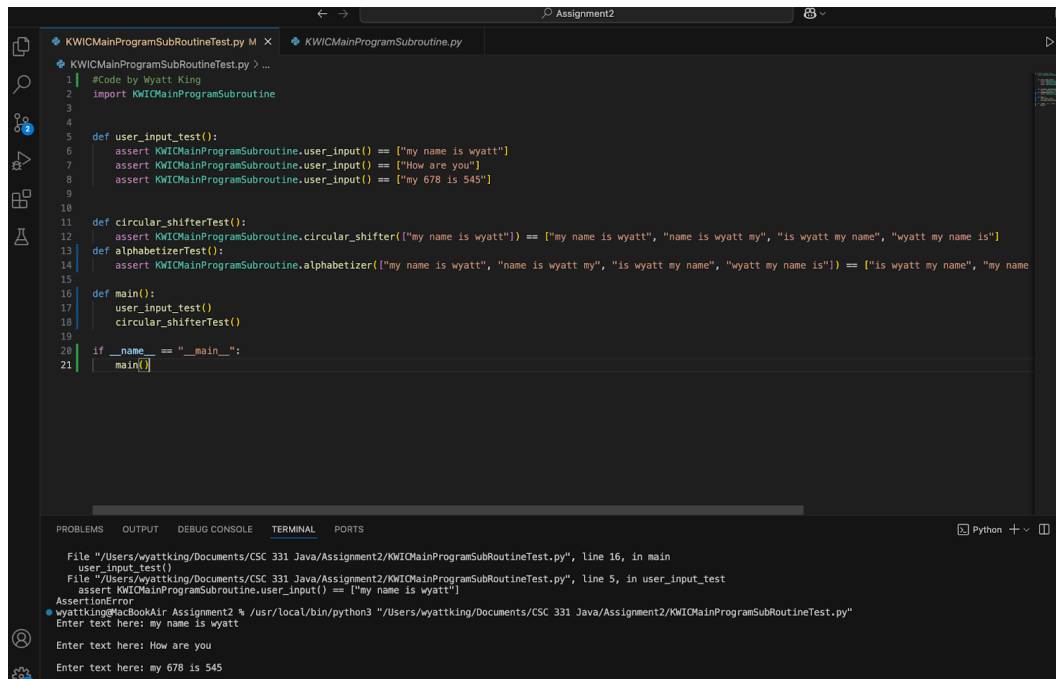
PS C:\Users\mikap\OneDrive\Desktop\Courses\Spring 2025 (Current)\SENG-301> & C:/Users/mikap/AppData/Local/Programs/Python/Python312/python.exe "c:/Users/mikap/OneDrive/Desktop/Courses/Spring 2025 (Current)/SENG-301/KWICMainProgramSubroutine.py"

Enter text here: Sheep jumped over the fence

Sheep jumped over the fence  
fence Sheep jumped over the  
jumped over the fence Sheep  
over the fence Sheep jumped  
the fence Sheep jumped over

PS C:\Users\mikap\OneDrive\Desktop\Courses\Spring 2025 (Current)\SENG-301>

Test code for Main Program Sub Routine:

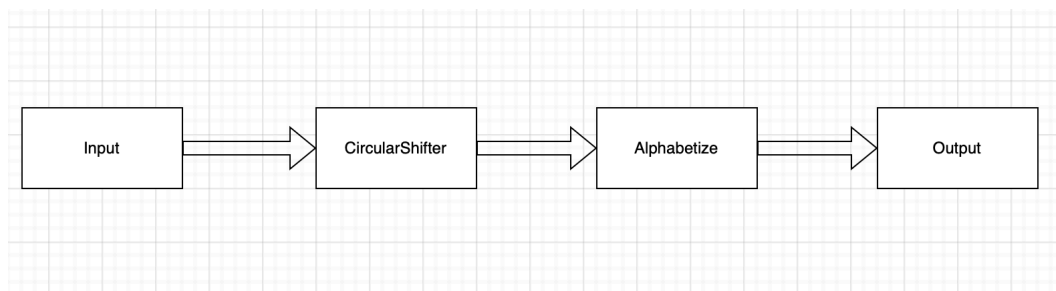


```
1 | #Code by Wyatt King
2 | import KVICMainProgramSubroutine
3 |
4 |
5 | def user_input_test():
6 |     assert KVICMainProgramSubroutine.user_input() == ["my name is wyatt"]
7 |     assert KVICMainProgramSubroutine.user_input() == ["How are you"]
8 |     assert KVICMainProgramSubroutine.user_input() == ["my 678 is 545"]
9 |
10 |
11 | def circular_shifterTest():
12 |     assert KVICMainProgramSubroutine.circular_shifter(["my name is wyatt"]) == ["my name is wyatt", "name is wyatt my", "is wyatt my name", "wyatt my name is"]
13 |
14 | def alphabetizerTest():
15 |     assert KVICMainProgramSubroutine.alphabetizer(["my name is wyatt", "name is wyatt my", "is wyatt my name", "wyatt my name is"]) == ["is wyatt my name", "my name is wyatt", "name is wyatt my", "wyatt my name is"]
16 |
17 | def main():
18 |     user_input_test()
19 |     circular_shifterTest()
20 |
21 | if __name__ == "__main__":
22 |     main()
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Python + -

File "/Users/wyattking/Documents/CSC 331 Java/Assignment2/KVICMainProgramSubRoutineTest.py", line 16, in main  
user\_input\_test()  
File "/Users/wyattking/Documents/CSC 331 Java/Assignment2/KVICMainProgramSubRoutineTest.py", line 5, in user\_input\_test  
assert KVICMainProgramSubroutine.user\_input() == ["my name is wyatt"]  
AssertionError  
wyattking@MacBookAir Assignment2 % /usr/local/bin/python3 "/Users/wyattking/Documents/CSC 331 Java/Assignment2/KVICMainProgramSubRoutineTest.py"  
Enter text here: my name is wyatt  
Enter text here: How are you  
Enter text here: my 678 is 545

Diagram and Demonstration Code for Pipes and Filters Design:



KWICPipesFilters.py > ...

```
12
13 def circular_shifter(data):
14     shifted_list = []
15
16     for i in range(len(data)):
17         shifted = data[i:] + data[:i]
18         shifted_list.append(" ".join(shifted))
19
20     return shifted_list
21
22 def KWIC_input(data):
23     if type(data) == list:
24         return data
25     elif type(data) == str:
26         return data.split()
27
28
29 data = 'my name is chloe'
30 filters = [KWIC_input, alphabetize, circular_shifter]
31
32 print(pipeline(data, filters))
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Python + - [ ] ... ^ X

```
/usr/bin/python3 /Users/chloesmith/SENG301/Assignment2/KWICPipesFilters.py
(base) chloesmith@Chloes-MacBook-Pro Assignment2 % /usr/bin/python3 /Users/chloesmith/SENG301/Assignment2/KWICPipesFilters.py
['chloe is my name', 'is my name chloe', 'my name chloe is', 'name chloe is my']
(base) chloesmith@Chloes-MacBook-Pro Assignment2 %
```