INFO 6079 LAB 6 SUMMER 2023

FANSHAWE School of Information Technology

Lab 6 objective:

1. Create a number Game
    a. Use RANDOM to select a number
    b. Use INPUT to get number from the user
        i. You will have to convert the input to an INTEGER
    c. Use IF statements for >, < =
    d. Write to a file the answers (sort of a logging process)

Lab Time:

Due June 19, 2023 11:59pm

Late submission will result in loss of grade.

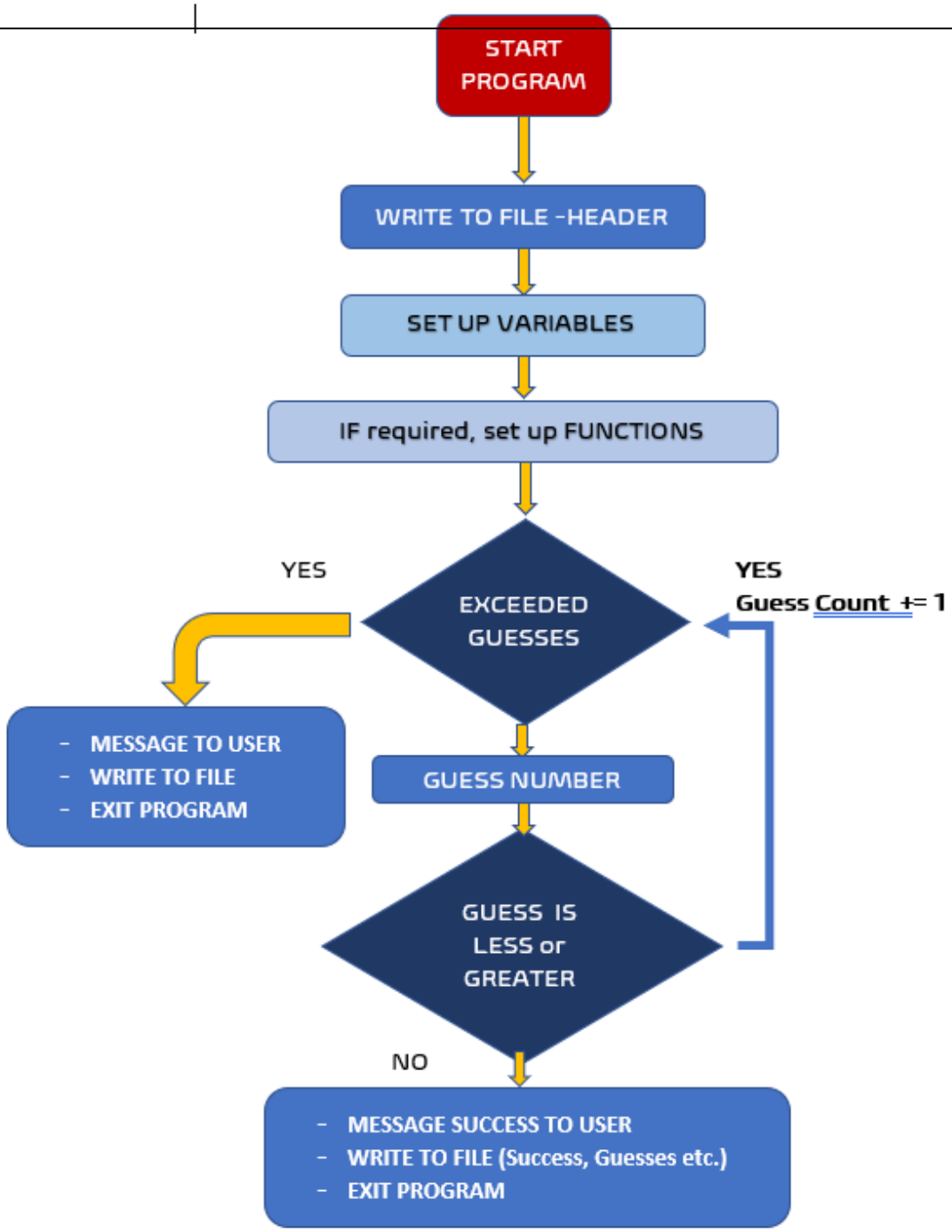
Lab Scoring:

LAB 6		
1	Set up variable for RANDOM Number between 1 and 100	1
2	Set Variable for the number of times to guess (max 10 times??)	1
	Use Try, except to handle invalid entries from the user	3
	Write header information to the file	3
	Set up a FILE for WRITING	2
	Get data from user (guess the number) - Make sure informative info for users	2
	Using IF statements, check the number against the RANDOM number	5
	Message back to user their success Write the answer to the file	3
	Total	20

LAB 6 Notes

- If writing to a file use concatenation
  - `E.g. f.writelines("Number " + str(intX))`
- For writing you must convert the number to a string
- Use "\n" to add a newline break
- Use "\t" to enter a tab in the line
- Use break to exit it statements

FLOW CHART



LAB 6 instructions

1 Download the python template

i. INFO6079_F2022_LAB06_template.py

ii. Rename to (your initials)_F2022_Lab06.py **e.g hbh_F2022_Lab06.py**

iii. Add your header to the file (name, StuID etc.)

iv. Answer questions re SOCKETS in the template

v. Write to the file with your header information

1. Use e.g. `with open(file, "w") as fw:`
   `Fw.writelines(data)`

vi. Using While loop and Try Except

```
while True:
    Try:
        Code
    Except:
        Catch any errors in data submission
```

2 Using **`Import RANDOM`** module

i. Create a variable and set it to a RANDOM number

ii. Use **`random.randint(x, y)`**

1. X = starting number
2. Y = end number

3 Implement **`try and except`** in your checking user input

4 check if exceeded the number of guess times

i. if exceeded then

1. print out end message to user exceeded # guesses
2. print out Random number
3. write these answers to the output file created
4. exit the program

ii. otherwise

1. ask for new number
2. check if against RANDOM number
   a. if Equivalent to the RANDOM number
      i. message to user
      ii. write to answer to file
      iii. exit program
   b. if Greater than number
      i. message to user
      ii. write answer to file
      iii. ask for a new number (or loop)
      iv. increment guess count by 1
   c. if Less than number
      i. message to user
      ii. write answer to file
      iii. ask for a new number (or loop)
      iv. increment guess count by 1

RUN CODE AS MANY TIMES AS REQUIRED TO MAKE SURE IT WORKS

- SUBMIT completed .py file to Submission box
- Don't forget the answer question (re SOCKETS)