PROGRAMING CHALLENGES

COMP321

ASSIGNMENT 1

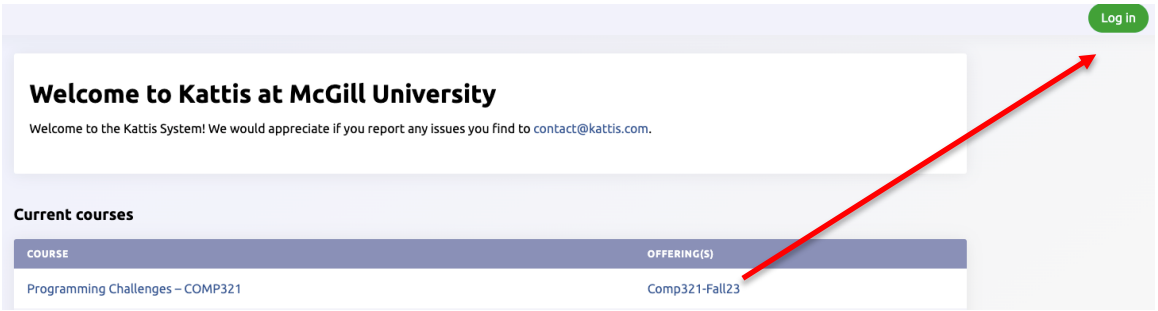
Setup

Kattis (https://mcgill.kattis.com/) is a website that allows students to submit solutions to programming problems, and have them evaluated automatically by running a series of test cases on the submitted solutions.

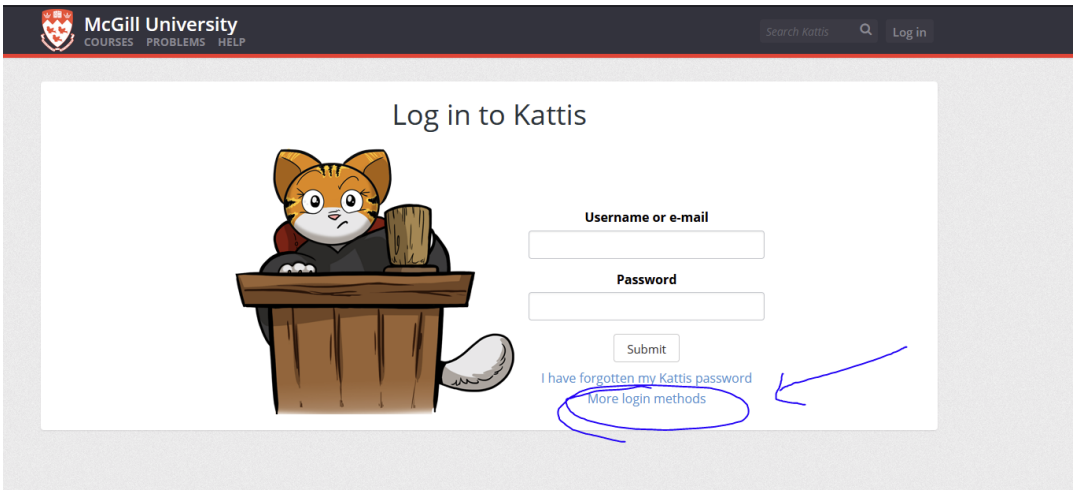
Before you can submit code through Kattis, you need to complete the following steps:

1. Go to (https://mcgill.kattis.com/) registration page and register into the offering course called "Comp321-Fall23". **Please always use your McGill credentials**. The password to join the course is **321McGillFall23**. Please do not share this password with anyone outside the class. I am providing a detailed step-by-step protocol to register and submit your assignment below. Please notice that there could be faster and easier methods to register. If you find an easier/better way to register, please share it in our discussion board.

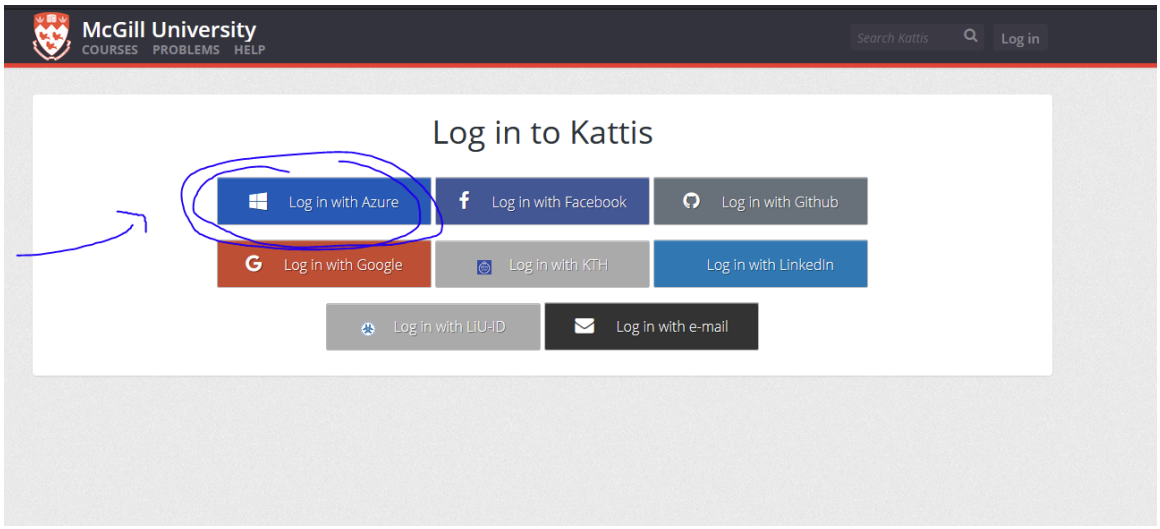
Creating an account using your McGill email

1. Go to https://mcgill.kattis.com/courses
2. 

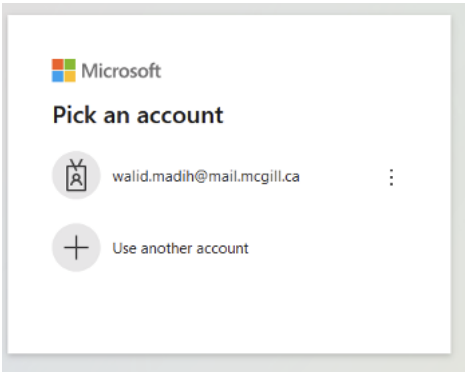
3.



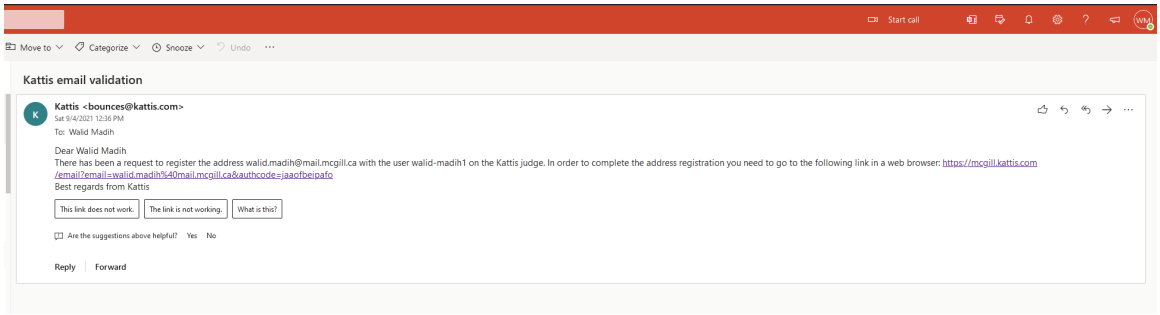
4.



5. Login using your MGill email credentials and authorize Kattis to access your info.



6. Validate your email

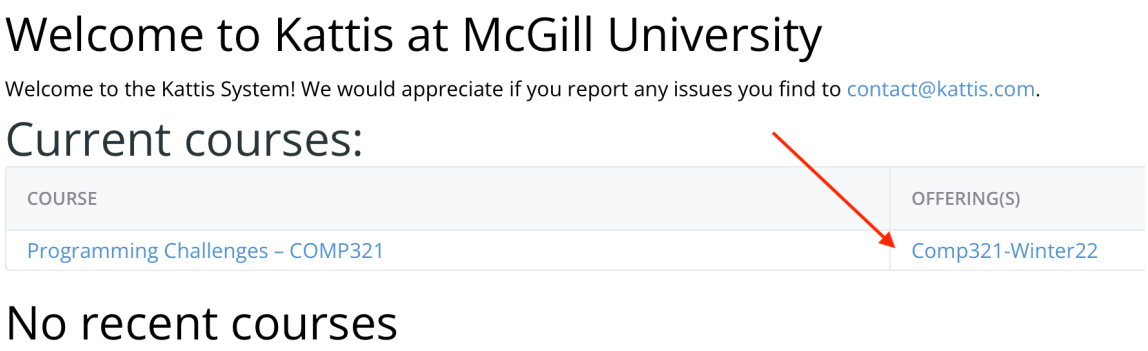


7. You should now be logged in / able to login via Azure.

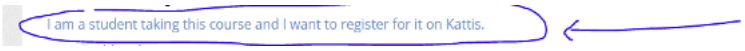
Submitting the "Hello World" program

1. Click on Courses if you aren't already on the page

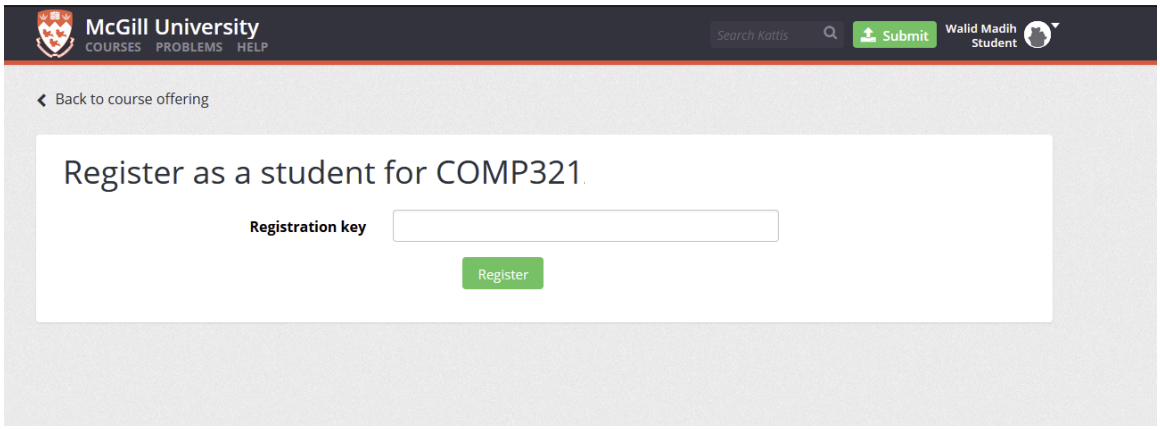
2.



3. Register for the course

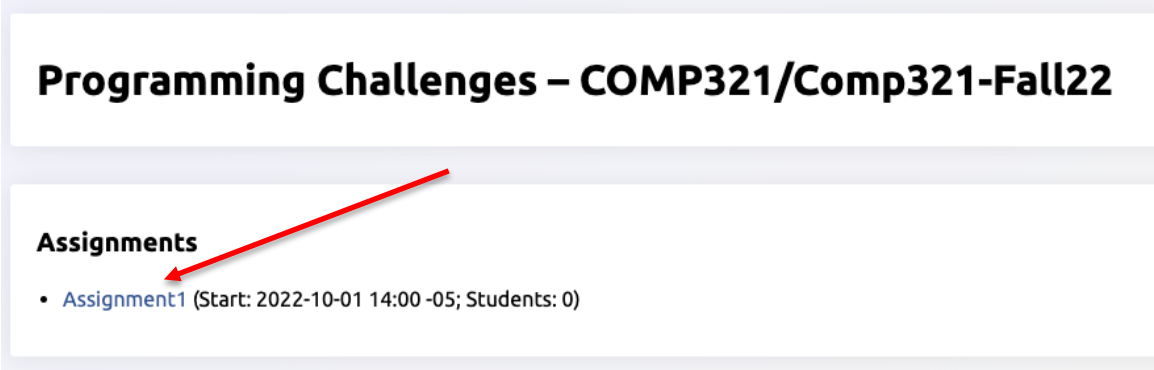


4. The code is: 321McGillFall23

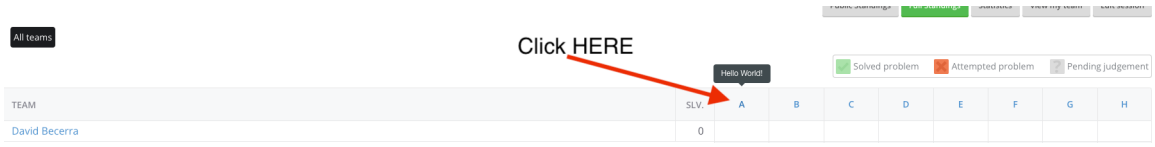


5. Submit your Hello World solution in Assignment 1

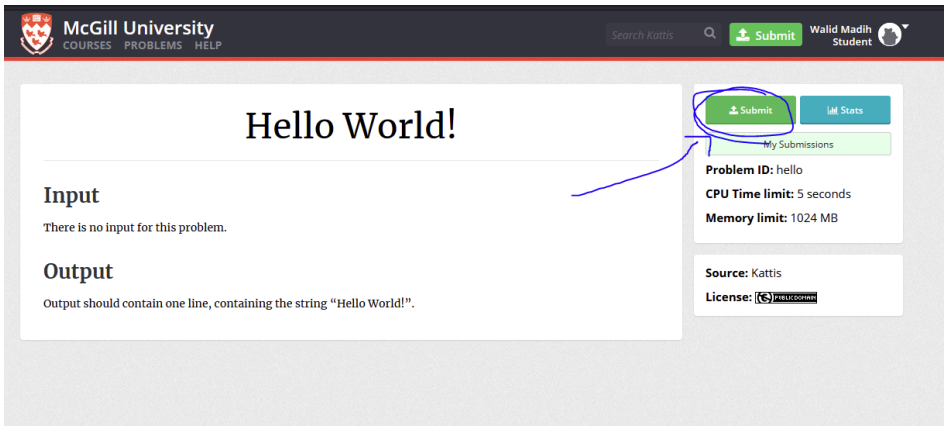
Click in Assignment1



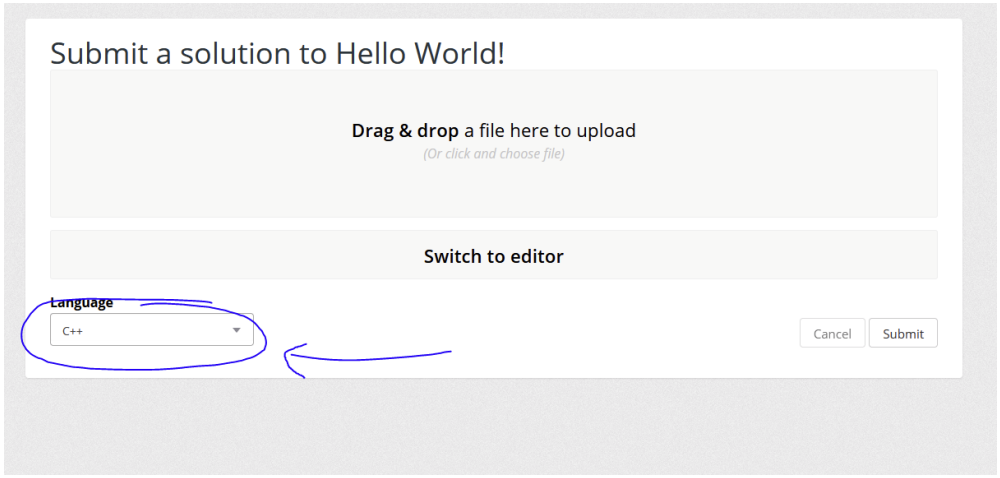
Click in A (Hello World)

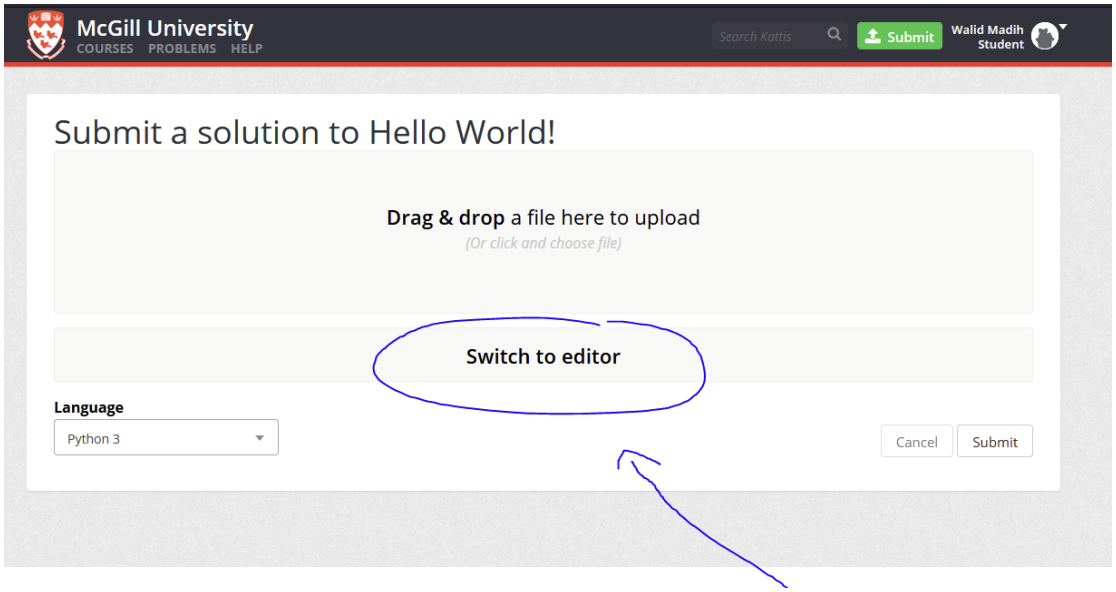


Click in Submit

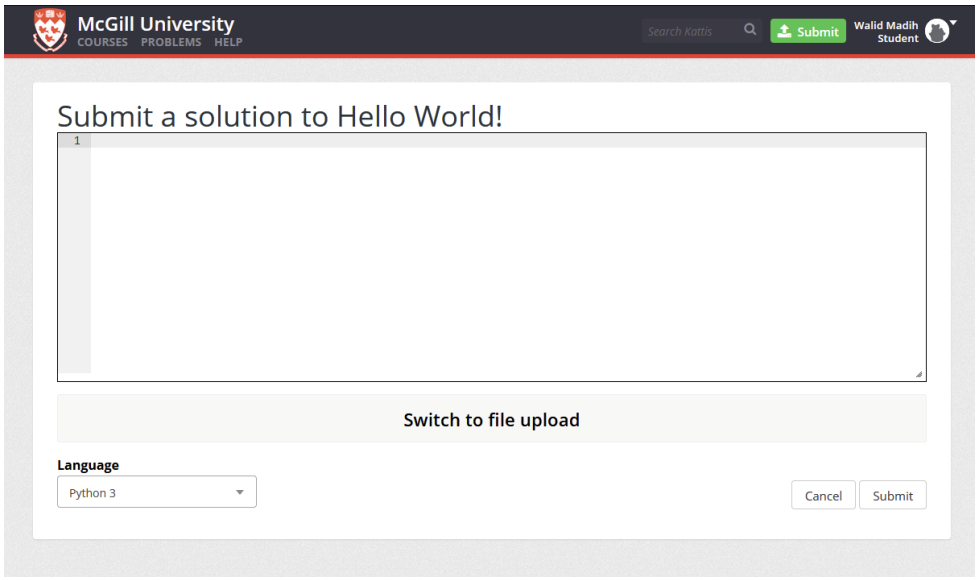


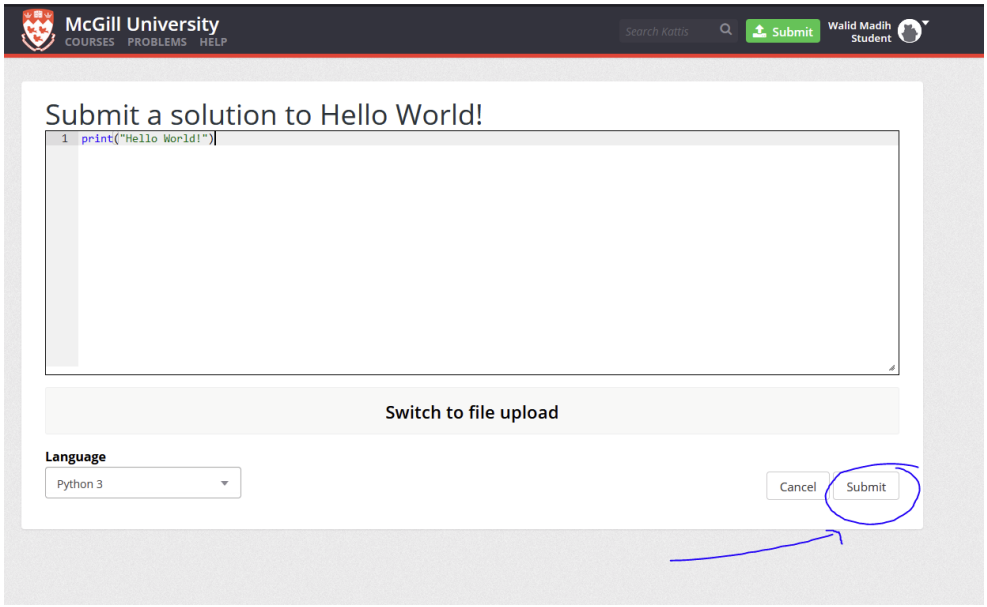
6. Choose your language



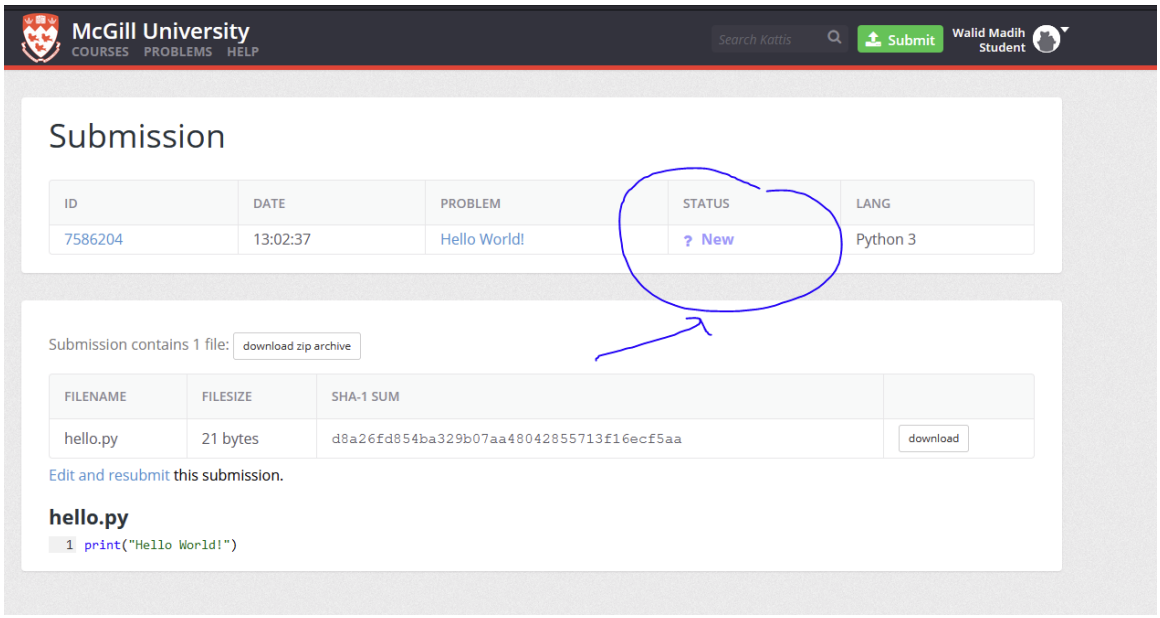


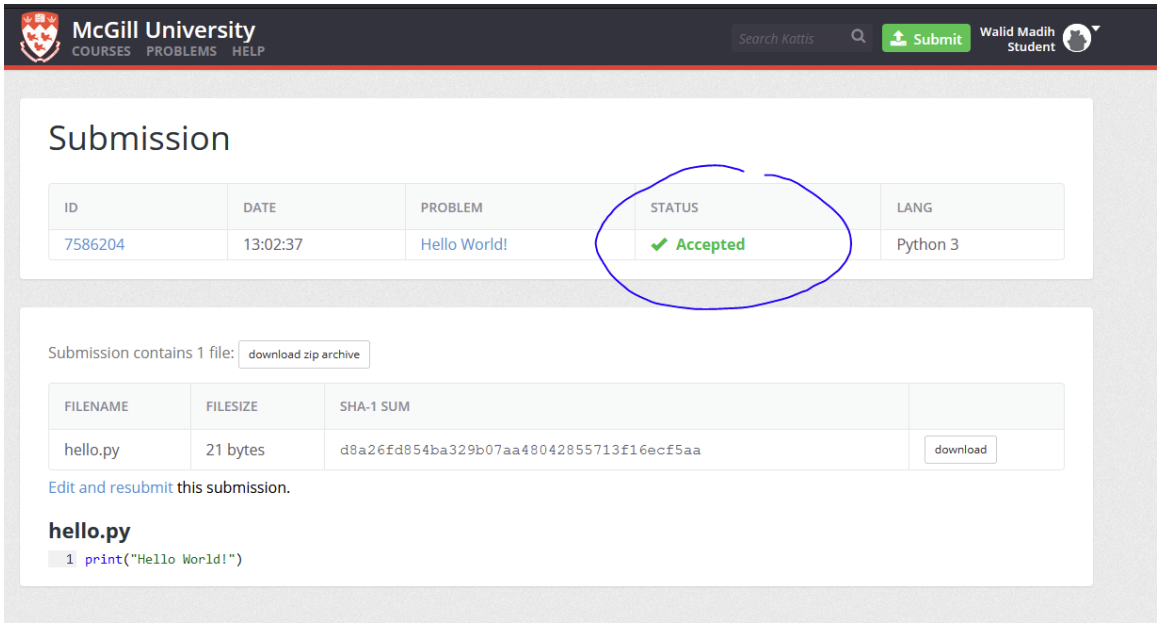
7. Type or upload your code





8. Wait for the status to update





9. Please guarantee that you see 100 points under the Assignment 1 "contest".

2. Go to the help session and read the documentation for your preferred language program. In this class, we will code using C, C++ Java and/or Python.
    1. https://mcgill.kattis.com/help/java
    2. https://mcgill.kattis.com/help/cpp
    3. https://mcgill.kattis.com/help/c
    4. https://mcgill.kattis.com/help/python3
3. Click in Assignment 1 and try to solve the other problems of the assignment.

    After you've submitted the code, Kattis will "judge" it, and will notify you with the result. If you solved the problem correctly, you will get an "Accepted" judgment. You can also check the status of all your submissions by clicking on the user icon on the top-right corner of the Kattis page, and then clicking on your name. This will show a list of all your submissions. Take into account that this list does not update automatically; if a submission shows up as pending (either "Compiling" or "Running"), you need to reload the page to see its latest status. Before submitting a solution to Kattis, you may want to run your solution on your own machine to make sure there are no major issues with your code, such as syntax errors or small mistakes that will makes your code return a Wrong Answer even with the sample input. The problems include some sample data that you can use to test your solution (you can download this data from the problem webpage). However, Kattis will run your solution with additional test cases, typically designed to check corner cases.

Solving the problems I give you.

The list of the problems that we will solve for this assignment is as follows. Solve some of the following problems on Kattis. **You need 3.5 points or more to get full score. Please guarantee that you see your solutions submitted in our assignment 1.**

1. **Hello [0.25 points]:**

https://mcgill.kattis.com/courses/COMP321/Comp321Fall23/assignments/gj53dr/problems/hello

2. **Sort two numbers [0.25 points]**

https://mcgill.kattis.com/courses/COMP321/Comp321-Fall23/assignments/gj53dr/problems/sorttwonumbers

3. **Oddities [0.5 points]**

https://mcgill.kattis.com/courses/COMP321/Comp321-Fall23/assignments/gj53dr/problems/oddities

4. **Cold-puter Science [0.5 points]**

https://mcgill.kattis.com/courses/COMP321/Comp321-Fall23/assignments/gj53dr/problems/cold

5. **Quick Brown Fox [1 point]**

https://mcgill.kattis.com/courses/COMP321/Comp321-Fall23/assignments/gj53dr/problems/quickbrownfox

6. **Erase Securely [1 point]**

https://mcgill.kattis.com/courses/COMP321/Comp321-Fall23/assignments/gj53dr/problems/erase

7. **Time Bomb [1.5 points]**

https://mcgill.kattis.com/courses/COMP321/Comp321-Fall23/assignments/gj53dr/problems/timebomb

8. **T9 Spelling [1.5 points]**

https://mcgill.kattis.com/courses/COMP321/Comp321-Fall23/assignments/gj53dr/problems/t9spelling

9. **Permutation Encryption [2 points]**

https://mcgill.kattis.com/courses/COMP321/Comp321-Fall23/assignments/gj53dr/problems/permutationencryption

10. **Bus Numbers [2 points]**

https://mcgill.kattis.com/courses/COMP321/Comp321-Fall23/assignments/gj53dr/problems/busnumbers

Please remember that the assignment must be solved individually.
The due date for this assignment is Friday September 8th before midnight.