

**DATA, INFERENCE
&
APPLIED MACHINE LEARNING
(COURSE 18-785)**

ASSIGNMENT 0

**Mark Iraguha
(miraguha)**

Introduction:

The purpose of this report is to outline the steps, results and insights of assignment 0 and assignment 1 of the DIAML course. Assignment 1 is to achieve the goal of successfully printing out the full course name to the console as well as defining and assignment 1 calculating the total of 3 famous mathematical constants i.e. Pi, Eulers Constant (e) and the Golden Ratio.

Libraries Used:

None.

Steps:

1. Printing the course name Data, Inference & Applied Machine Learning to the console:

Step 1: I have used the "print()" built-in function to print out the full course name as a string.

2. Defining and calculating the sum of three famous mathematical constants:

Step 1: In order to calculate the sum of three famous mathematical constants, I have declared the constants individually giving each of them meaningful names.

Step 2: Finally, I have utilized the "print()" built-in function to print out the sum of these constants.

Results Obtained:

1. Printing the course name Data, Inference & Applied Machine Learning to the console:
 - The DIAML course name is printed to the standard console successfully.
2. Defining and calculating the sum of three famous mathematical constants:
 - The mathematical constants defined are called and the sum is printed to the standard console.

Insights:

1. Simplicity: The fact that python is a dynamically typed language[1], the code written to achieve the stated goal is short and precise. This promotes clean and simple code that is easy to read and interpret even when writing large algorithms.
2. Eulers constant: This is a mathematical constant that's also an irrational number that represents the natural logarithm. It also represents exponential growth or decay.[2]
3. Pi Archimedes' constant (π): This mathematical constant is also known as Archimedes' constant and represents the ratio of the circumference of a circle to its diameter.[2]
4. Golden Ratio (ϕ): This is an irrational mathematical constant that is commonly seen in geometry.[2]

References:

- [1] "Python (programming language)," *Wikipedia*. Aug. 30, 2024. Accessed: Aug. 30, 2024. [Online]. Available: [https://en.wikipedia.org/w/index.php?title=Python_\(programming_language\)&oldid=1243069035#cite_note-34](https://en.wikipedia.org/w/index.php?title=Python_(programming_language)&oldid=1243069035#cite_note-34)
- [2] "Mathematical constant," *Wikipedia*. Aug. 26, 2024. Accessed: Aug. 30, 2024. [Online]. Available: https://en.wikipedia.org/w/index.php?title=Mathematical_constant&oldid=1242293347#cite_note-8

I, the undersigned, have read the entire syllabus for course 18-785 (Data Inference and Applied Machine Learning). I agree with the terms and conditions of participating in this course, including adherence to CMU's AIV policy.

Signature: Mark Iraguha

Andrew ID: miraguha

Full Name: Mark Iraguha
