BBM 301 - Programming Languages - Fall 2020
Assignment 1

Due Date: 12 November 2020, 23:59

Evaluating a New Programming Language

According to Wikipedia, there are about 700 programming languages. As we have discussed in class, some of them are not in use anymore, and some of them are newly introduced. The aim of this assignment is to make you familiar with researching new programming languages.

For this purpose, go to Tiobe Index (https://www.tiobe.com/tiobe-index/), and from the list of first 50 programming languages that are widely used, **pick one PL that you did not know previously and want to learn about** (*excluding database languages like SQL, PL/SQL, Scheme, LISP, PROLOG and assembly language*). Make a brief research about the PL that you have chosen and its usages.

Your assignment report should include the brief discussions about the following points:

1 - What is the origin of this PL? Why, where and by whom has it been invented? What is the general purpose of the language and common application domains? Why are you interested in this PL? **[10 pts]**

2 - Evaluate the PL in terms of the language evaluation criteria (by giving examples). **[20pts]**

3 - Write a simple code in that PL, showing how variable declaration, assignment, data structures, function declarations and calls are used. Emphasize the strong and weak points of your writing experience using this PL. **[25pts]**

4 - How are identifiers defined in that PL? Write the corresponding regular expression and/or BNF rules. **[20pts]**

5 - How are function definitions and function calls defined in that PL? Write down the corresponding BNF syntax descriptions. **[25pts]**

Write a report including your answers to the above points. Submit your report **in pdf format**, to gradescope (Course Entry Code: **JBB784**).

<u>***Important:***</u> *Your report **will be checked against plagiarism**, so make sure that you have correctly and fully cited all the references that you have used, and make sure that you **answer using your own sentences**. Significant overlap with existing resources will result in significant loss of points.*