

AITI UofM Pretest

This test is meant simply to gauge the experience of the class, so that we can adjust the curriculum to be as interesting and useful for you as possible. We are not looking for perfect scores, just to figure out what you already know. Please do not spend more than 1 hour on this test; don't stress out about it.. Feel free to use any language you're comfortable with (Java, Python, C/C++, etc.), but if you can, try to use a language we will use in the class. That is, Python or Java, with Django as a web framework.

****Starred questions are required**

Personal Questions

These questions are to get to know you.

*Name:

*Please check what University Program you are in:

- Faculty of IT
- Faculty of Engineering

*What operating system(s) do you use on your personal computer?

Technical Questions

You do not have to answer all of these questions completely. Just put forth your best effort. Please do not be too particular about syntax; we understand that you do not have a compiler to check your work—we are just seeing if you know how to approach the problem.

*What programming language are you most comfortable with?

- Java
- Python
- Other _____

Write a program that prints out the numbers from 1 to 500 that are both odd and divisible by 3.

Read in a sentence from the user. Return a message stating whether or not the string is a palindrome (a palindrome is read the same forwards and backwards, e.g. "racecar" and "never odd or even"). Assume that the sentence will be in all lowercase letters with no punctuation, and ignore spaces.

Write a class "Animal" with private variables "name" and "age" and simple access methods "getName" and "getAge", as well as a constructor. Next, write another class "Dog" that extends (is a subclass of) "Animal". Dog should have all the functionality of Animal, except that it returns its age in dog years (normal age multiplied by 7). Make sure to not repeat code unnecessarily.

Using the web framework of your choice (Django if you can), describe the configurations and/or the code you will write, to display "Hello World" on 127.0.0.1