Task: Your First Computer Program

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Introduction

Welcome to Your First Computer Program Task!

In this task, you are introduced to the Python programming language. Python is a widely used, high-level programming language and is consistently ranked in the top 10 most popular programming languages as measured by the TIOBE Programming Community Index. Many familiar organizations make use of Python, such as Wikipedia, Google, Yahoo!, and NASA as well as Reddit, which is written entirely in Python.

This task is a gentle introduction to the programming language where you will be asked to create a simple program and in doing so become familiar with the structure of a Python program.

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Remember that with our courses, you're not alone! You can contact your mentor to get support on any aspect of your course.

The best way to seek help is to drop your mentor a line in the *comments.txt* file in your Dropbox folder. You can also log into **www.hyperiondev.com/support** to start a chat with your mentor, or schedule a 1:1 call with them.

Your mentor is happy to offer you support that is tailored to your individual career or education needs. Do not hesitate to ask a question or seek additional support!

Hope you're excited to start learning such a popular and fun programming language!

A brief history of Python:
Python is named after the Monty Python comedy group. It was created by 'Benevolent Dictator For Life' Guido van Rossum in 1991, who now works for Dropbox. Van Rossum incidentally happens to be a big Monty Python's Flying Circus fan. His inspiration for Python stemmed from the desire to create a simple scripting language and his experience with the ABC programming language.

—The Hyperion Team

Why Python?

Python is a powerful, widely used programming language. Unlike Java, Python is a more recent, efficient and arguably faster programming language. The syntax (way the code is written) is very similar to Java.

Simple, yet powerful

Looking at languages like C++ and Java can flummox and scare the beginner. But Python is intuitive with a natural way of presenting code. Python's succinctness and economy of language allows for speedy development and less hassle over useful tasks. This makes Python easy on the eyes and mind.

ZEN OF PYTHON

The Zen of Python, written in 1999 by Tim Peters, mentions all the software principles that influence the design of the Python language.

Beautiful is better than ugly.

Explicit is better than implicit.

Simple is better than complex.

Complex is better than complicated.

Flat is better than nested.

Sparse is better than dense.

Readability counts.

Special cases aren't special enough to break the rules.

Although practicality beats purity.

Errors should never pass silently.

Unless explicitly silenced.

In the face of ambiguity, refuse the temptation to guess.

There should be one-- and preferably only one --obvious way to do it.

Although that way may not be obvious at first unless you're Dutch.

Now is better than never.

Although never is often better than *right* now.

If the implementation is hard to explain, it's a bad idea.

If the implementation is easy to explain, it may be a good idea.

Namespaces are one honking great idea -- let's do more of those!

Ever need to recall these principles? Try entering this into your Python interpreter!
 >> import this

Know this, Python is hot:

As of 2018, the demand for Python programmers is only growing. Python boasts the highest year-on-year increase in terms of demand by employers (as reflected in job descriptions put up online) as well as popularity among developers. Python developers are one of the highest paid programmers! Also, the demand for Python is only set to grow further with its extensive use in analytics, data science and machine learning.

From child's play to big business:

While Python is simple enough to be learned quickly (even by kids), it is also powerful enough to drive many big businesses. Python is used by some of the biggest tech firms such as Google, Yahoo!, Instagram, Spotify and Dropbox, which should speak volumes about the job opportunities out there for Python developers.

Python is on the web:

Python is a very appealing language of choice for web development. Sites such as Pinterest and Instagram make use of the versatility, rapidity and simplicity of Django (web development framework written in Python).

Even Dropbox was built using Python:

Dropbox must save massive amounts of files while supporting massive amounts of user growth. 99.9% of Dropbox code is written in Python! Using Python has helped Dropbox gain more than a hundred million users. Using only a few hundred lines of Python code, they were able to scale up massively in user numbers. Learn from Dropbox and use Python!

- **Masood Gool**

Instructions

Before you get started we strongly suggest you start using Notepad++ or IDLE to open all text files (.txt) and python files (.py). Do not use the normal Windows notepad as it will be much harder to read.

First read example.py, and open it using Notepad++ (Right-click on the file and select 'Edit with Notepad++') or IDLE.

- example.py should help you understand some simple Python. Every task will have example code to help you get started. Make sure you read all of example.py and try your best to understand.

- You may run example.py to see the output. The instructions on how to do this are inside the file. Feel free to write and run your own example code before attempting the task, to become more comfortable with Python.

- You are not required to read the entirety of Additional Reading.pdf. It is purely for extra reference.

Compulsory Task

Follow these steps:

- Create a new Python file in this folder called "HelloWorld.py."

- Inside this file, write Python code to take in a user's name using input() and then print out the name.

- Also take in a user's age using the same method and print out their age.

- Finally, print out a new line and the string "Hello World!"

Things to look out for:

1. Make sure that you have installed and setup all programs correctly. You have setup **Dropbox** correctly if you are reading this, but **Python or Notepad++** may not be installed correctly.
2. If you are not using Windows, please ask your mentor for alternative instructions.

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