Session 1: Assignments

1. Read chapter 2 of the following book:

<http://www.ict.ru.ac.za/Resources/cspw/thinkcspy3/thinkcspy3.pdf>

***Nếu bạn không đọc được tiếng anh, mặc dù không khuyến khích, bạn có thể đọc tài liệu sau để thay thế:***

<http://phocode.com/python/python-cac-kieu-du-lieu-co-ban/>

and answer the following questions:

* How to check a variable’s type?

***Answer:***

Using function: >>>*type(variable)*

Some example of data types:

>>> type("Hello, World!")  
<class ’str’>  
>>> type(17)  
<class ’int’>

>>> type(3.2)  
<class ’float’>

* In what cases, you will get ***SyntaxError*** from the compiler telling you that some of your variables have **invalid names**? Can you give 3 different examples of **invalid names**?

***Answer:***

***SyntaxError***in some cases of invalid names:

+) name does not begin with a letter: >>> 2018sales = “total revenue”

+) name contains illegal character: >>>%margin = “Net income over Revenue”

+) name is one of (thirty-something) Python keywords: >>>True = “positive Net Income”

1. Write a program that calculates the **area** of a **circle**. The circle radius is entered by users

Expected screen output:

|  |  |
| --- | --- |
|  |  |
| # This one is fine | # This one is a little bit better |

1. Write a program that converts **Celsius** (0C) into **Fahrenheit** (0F)

Expected screen output:

|  |  |
| --- | --- |
|  |  |
| # This one is fine | # This one is a little bit better |

|  |  |
| --- | --- |
| *http://www.bestappsforkids.com/wp-content/uploads/2012/04/save-turtle.png* | ***Turtle exercise*** |

Use Python Turtle to draw the following shapes

|  |  |
| --- | --- |
| 1. **A square** | 1. **A right triangle** |
| 1. **A circle (Hint: Google “*Python Turtle Circle*”)** | 1. **Multi-circles**     Or even better: |

|  |  |
| --- | --- |
| system_config_boot.png | ***Tools preparation*** |

Sign up a <https://github.com> account