Data Types in Python

a) “Hello”

b) “World”

c) 54

d) 55.8

e) “potato”

f) 43

g) 42

h) “five”

i) 7

j) “tree”

k) 8.5

l) “46”

m) 9

n) 2.6

Creating Variables

Complete the following exercises

1.
    a. Create a variable called *name* that stores your name as a value
    b. Create a variable called *age* that stores your Age as a value
    c. Create a variable called *height* that stores your height as a value
    d. Create a variable called *friends_name* that stores the name of one of your friends as a value
    e. Create a variable called friends_age that stores the age of your friend as a value
    f. Create a variable called *fav_num* that stores your favourite number as a value
    g. Create a variable called *fav_sub* that stores your favourite subject at school as a value
    h. Create a variable called *fav_animal* that stores your favourite animal as a value
    i. Create a variable called *answer* that stores the answer to 50 × 25 as a value
    j. Create a variable called *empire* that stores your guess to the question 'How many floors does the empire state building have?' as a value
2. Now, print 5 of these variables to the screen!

Creating Variables

Recall the rules for creating variables:

- Variable names cannot begin with a number
- Only use lower case letters in variable names
- Use the underscore to separate words in variable names
- Avoid illegal characters in variable names
- Avoid keywords in variable names
- Try to keep variable names short but descriptive

Exercises

1. Let's try some of the errors above and see what messages we get.
    a. Define a variable called 1name = "Mark"
    b. Define a variable called c@t_name = "Jamie"
    c. Define a variable called print = "Hello World!"
2.
    a. Do we prefer the variable name *Age* or *my_age_right_now*?
    b. Do we prefer the variable name *number_of_people_in_this_room* or *num_people*?
    c. Do we prefer the variable name *print* or *num_prints*?
    d. Do we prefer the variable name *People* or *people*?
    e. Do we prefer the variable name *my name* or *my_name?*
    f. Do we prefer the variable name *w* or num_*words?*
    g. Do we prefer the variable name *BiggestPerson* or *tallest_person?*
    h. Do we prefer the variable name *email_@ddress* or *email_address?*
3. Now, you have a chance to create your own variable names. Write in Spyder names for each of the variables and give them a reasonable value.
    a. The number of pages in a book
    b. A person's country of birth
    c. The year someone was born in
    d. The number of miles in a marathon
    e. The size of a tree
    f. The size of a family
    g. The name of a planet
    h. The brand of phone that someone owns

Using Variables

Exercises

1. Let us define some variables and use them to write some messages
    a. Print the message “Hello World! I love Python” by storing the phrases in two different variables.
    b. Print the message “How are you?” by storing the three words in different variables.
    c. Print the message “What is your name?” by storing the words in different variables.
    d. Print the message “I like programming, do you” by storing the phrases in two variables.
    e. Print the message “How are you today?” by storing the three words in different variables.
    f. Print the message “Hello World!” by storing the words in different variables.
    g. Print the message “What time is it?” by storing the words in different variables
2. For each of the questions below, store the values in the variables given, then print their sum, product and difference.
    a. num1 = 45, num2 = 87
    b. num3 = 6, num4 = 34
    c. num5 = 8, num6 = 65
    d. num7 = 91, num8 = 12
    e. num9 = 46, num10 = 878
    f. num11 = 9, num12 = 134
    g. num13 = 7, num14 = 37
3. For each of the questions in 2, make the following alterations and then print the sum, product and difference.
    a. num1+4, num2-76
    b. num3+12, num4+5
    c. num5 x 3, num6-40
    d. num7-90, num8-8
    e. num9+5, num10-800
    f. num11+7, num12-5
    g. num13 x 2, num14 -30

4. Ask for the user's first and last name, then print out the message:
   "Hello … …!"
5. Ask the user for two numbers, then print out the message:
   "The sum of your numbers is: …"
6. Ask the user for two numbers, then print then print out the message:
   "The product of your numbers is: …"
7. Ask the user for two numbers, then print then print out the message:
   "The difference of your numbers is: …"
8. Ask the user for two of their favourite animals, then print then print out the message:
   "Your favourite animals are … and …"
9. Ask the user for their favourite flavour of ice cream, then print then print out the message:
   "Hi …! Your favourite flavour of ice cream is … "