

## Python Mock Final Exam

16/4/2018

1. How would you:
  - a. check the type of a variable in Python;
  - b. convert a variable from one type to another;
  - c. handle any errors(exceptions) raised in the conversion? Create a practical example.
2. Write a RECURSIVE Python function which multiplies two numbers without using the \* operator.  
  
Sample input for first number: 3  
Sample input for second number: 6  
Sample output: 18
3. Create a simple Django/ Flask website which has a landing page displaying just "Hello World!". The website should also have a second route: yourwebsite.com/second, displaying another page.
4. Create a function that returns True if a given date is in the YYYY-MM-DD format.
5. Write a Python program to check for a decimal with a precision of 2. I would prefer a regex solution here.
6. Write a Python program to get the current date time information.
7. Write a Python program to combine each line from first file with the corresponding line in second file.
8. Write a Python program to get the two largest and three smallest items from a dataset (list).
9. Write a Python program to plot two or more lines with legends, different widths and colors.
10. Write a Python program to draw a line using given axis values taken from a text file, with suitable label in the x axis, y axis and a title.