## **Test Questions**

## Time allowed 6hours

Submit to: <a href="mailto:proservices@bincom.net">proservices@bincom.net</a> using these format First name last name – Trainee/Intern

Developer python beginners. In your email attach a link to the repo where your solutions are, or attachments to your solutions.

Using clearly written python Code with comments.

- A. Extract the colors from the html file provided 'python\_class\_test.html', using regular expression.
- B. Store them in a dictionary, using color as key and their frequency as values.

Using python provide solutions to the following questions from the extracted colors.

- 1 Which color of shirt is the mean color?
- 2 Which color is mostly worn throughout the week?
- 3 Which color is the median?
- 4 BONUS Get the variance of the colors
- 5 BONUS if a colour is chosen at random, what is the probability that the color is red?
- 6 Save the colours and their frequencies in postgresql database
- 7. BONUS write a recursive searching algorithm to search for a number entered by user in a list of numbers
- 8 Write a program that generates random 4 digits number of 0s and 1s and convert the generated number to base 10
- 9. Write a program to sum the first 50 Fibonacci sequence

GOOD LUCK!!!!!