

Python Ubication Test.

Denso Mexico, 2022

The purpose of this exam is to locate the users python skills, as well as to introduce it directly to the work style that is handled in Denso.

Before Beginning:

- All the methods has to be written in "snake\_case" Style.
- All the classes has to be written in "camelCaseStyle"
- Avoid descriptive comments on your code, your code has to be auto-descriptive
- For every exercise, add a Screen Capture of the results obtained on a terminal.

\*Failure to comply with these parameters substracts points

### **1.-Exercise 1: Calification system.**

Create a calification system as following:

The user must enter a numeric value between 0 and 10.

If the value is between 9 and 10: Print an "A" letter

If it is between 8 and lees than 9: Print "B"

If it is between 7 and lees than 8: Print "C"

If it is between 6 and lees than 7: Print "D"

If it is between 0 and lees than 6: Print "F"

Any other value, or not numeric value, print: "Wrong Value, please enter a numeric value between 0 and 10"

The program has to be cyclic, asking the user if they want to capture another note, after every calification entry.

*\*Note you can do it in less than 28 lines*

### **2. - Calculate the area of a rectangle.**

Create a program that calculates the area of a rectangle, both given by the user.

To consider: Create a specific class for the rectangle, create an exclusive method to calculate the area, print a string with the legend "The area for the rectangle, result of multiply his base (The value that the user enter) by his height (The height value given by user) is: (Obtained result)"

The program has to be cyclic, asking the user if they want to calculate a new operation, after every area calculation entry.

*\*Note, you can do it in less than 19 lines*

### 3. - Get information from a web page

Create a Script witch gets the source code from a Webpage.

Access to the page: *example.com*

Print the content of the page in a doctype HTML

*\*Note, you can do it in less than 8 lines*

### 4.- Develop a script that by giving the values of the coefficients a, b and c allows solve a quadratic equation of the form: $ax^2 + bx + c = 0$

Using the general formula:  $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

*\*Note, you can do it in less than 26 lines*