**Week 7– Iteration Exercises**

1. Iterate numbers from 1 to 150 using a [for loop](https://pynative.com/python-for-loop/), and if a number is found greater than 100, we will break the loop.

Use the [if condition](https://pynative.com/python-control-flow-statements/#h-if-statement-in-python) to terminate the loop. If the condition evaluates to true, then the loop will terminate and display the number. Otherwise, the loop will continue to work until the main loop condition is true and display the numbers.

2. Write a program to print the cube of all numbers from 1 to a given number of 10.

Hint: cube is multiplication of owns number three times (i.e: cube of number 2 = 2 x 2 x 2 = 8

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| 3. Write a program to print the following pattern using the for loop |
|  |
| The expected output: |
| &  & &  & & &  & & & &  & & & & &  & & & & & &  & & & & & & &  & & & & & & & &  & & & & & & & & &  & & & & & & & & & &  & & & & & & & & &  & & & & & & & &  & & & & & & &  & & & & & &  & & & & &  & & & &  & & &  & &  & |

4. Write a program based on the following scenario:

There are two types of programming textbooks in the ABC bookstore. Phyton and DBase. Phyton costs RM225 per book while DBase cost RM320 per book.

According to the ABC Bookstore, the discount will be given based on the quantity of books purchased as follows:

▪ If the total quantity is less than 3, the customer will get 5% discount

▪ If the total purchased is between 4 to 10, the customer will earn 10% discount

▪ If the total purchased is more than 10, the customer will be rewarded with 20% discount

Your program should exit only if no more books need to be purchased by the customer. Your program also should be able to display the quantity of each book that users want to purchase, the discount they earn and the amount due after the discount.