

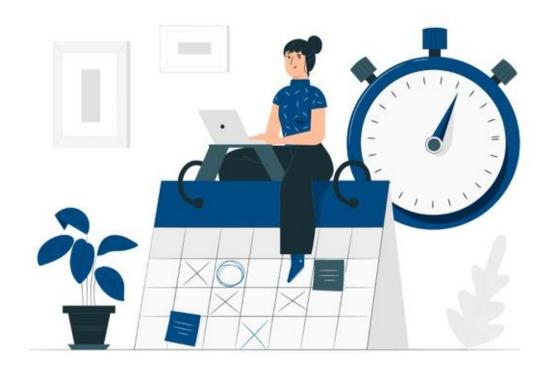




Control Structures

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ASSIGNMENT







Control Structures

Statements (if, elif, else and nested if)

- 1. Write a program that asks users to enter their age. If they are old enough to vote the program asks them to *collect their polling card*. However, if they are not old enough to vote the program tells them that they *are too young to vote*. You must be 18 years of age or older to vote.
- 2. Individuals who are 65 or over can apply for a concessionary travel card. Write a computer program that asks the user for their age and if they are not old enough then the following string is displayed:

Sorry you are not old enough to apply for a concessionary travel card.

However, if they are old enough the following string is displayed:

You may apply for the concessionary travel card.

3. For each of the following **workout through reading the code** the output of each program i.e. do not just execute the program and observe the output.

x = 7	print(z)	x = z + 2	x = z + 2
y = 4		z = x + y	z = x + y $print(z)$
z = x + y	x = 7	print(z)	
if $z < 10$:	y = 4		$\underline{\mathbf{x}} = \underline{3}$
z = z + x	z = x + y	x = 3	y = 4 $z = x + y$
z = z - y	if $z < 10$:	y = 4	$\frac{z}{\text{if } z < 10:}$
else:	z = z + x	z = x + y if $z < 10$:	$\frac{\text{if } z == 7:}{x = z + 3}$
if $z > 10$:	z = z - y	z = z + x	$\frac{x - z + 3}{z - x + y}$
x = z + 2	else:	z = z - y else:	else:
z = x + y	if $z == 10$:	if $z == 10$:	$\frac{z = z * 2}{print(z)}$

- 4. Write a python program to find the greater of two numbers.
- 5. Write a python program to find the greatest of three numbers.
- 6. Write a python program to check if the given number if positive or negative.





Loops

Note: Perform the exercise given below with both for loop and while loop.

- 1. Write a python program to print the first 20 integers.
- 2. Write a python program to print the reverse counting from 100 to 1.
- 3. Write a python program to print the sum of 1st 20 integers.
- 4. Write a python program to check if the number is an even number or odd.
- 5. Write a python program to print 1st 10 even numbers.
- 6. Write a python program to print 1st 10 odd numbers.
- 7. Write a python program to print the sum of 1st 20 even numbers.
- 8. Write a python program to print the sum of 1st 20 odd numbers.
- 9. Write a python program to print the multiplication table of a number in the format given below:

2*1=2

2*2=4

- 10. Write a python program to find those numbers which are divisible by 7 and multiple of 5, between 1000 and 2500 (both included).
- 11. Write a python program to count the number of digits in a number.
- 12. Write a python program to print the reverse of a number.
- 13. Write a python program to check if the number is a palindrome or not.
- 14. Write a python program to check if the number is an amstrong number or not.
- 15. Write a python program to calculate the cube of all the numbers from 1 to a given number.
- 16. Write a python program to calculate the factorial of a given number.