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3rd year Bachelor ISSE
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Tutorial 1: Series of exercises on JavaScript

Exercise 1:

Declare three variables x, y and z as '1', '2' and x+y.

1. Display the type and values of each variable,
2. Convert the type of a and b to integer,
3. Display the type and value of each variable.

Exercise 2:

Write a script function that calculate the factorial of a positive integer n=7.

The factorial of a number n is the product of all positive integers less than or equal to n.

By convention: 0! =1

Examlpe: for n=8   1! + 2!+ 3!+ 4!+ 5!+ 6!+ 7! + 8! = 46233

Exercise 3:

1. **Create an object** v1 with the following properties (attributes):
brand=VW, model=Golf, year=2017, engineCapacity=2.
2. **Display the value of the** model **property** (use two different methods).

3.Build a constructor function for an object called Car which should have four properties:
brand, model, year, and engineCapacity.

4. Create two instances of this object.

5. Write a for...in **loop** to iterate over one of the instances and display all its properties using an alert().

6. **Add a new property** color to each vehicle (use two different methods).

7. Use delete to **remove the property** engineCapacity.

8. Add a method display() that displays all the properties of a vehicle.

Exercise 4:

The **Date object** enables manipulation of dates. **getMonth()** method of this Date object returns the current month's number: 0 for January, 1 for February, etc, until 11 for December.

- Write a script that returns the full name of the month.
- Use an array to store months' names.

Exercise 5:

1. Create a digital clock displaying the day and the time.
2. Use JS functions (**setTimeout** and **setInterval**) to create a countdown of 20 secinds. Create a function start() triggered by a button and within which:
   - setTimeout is used to launch an action() function in 20 seconds. The action()function, after 20 seconds, displays the message 'finished' and spots the countdown by calling clearInterval.
   - setInterval to display the countdown of seconds.