```
1. JS Overview:
    - interactive web pages and applications
    - dynamic programming language - possible to change the type of a variable or add new properties or methods to an obj while the program is running

    alert('Hello students!');
    a=2
    b=5
    console.log(a+b)

    NPM = Node Package Manager (diff libraries)

2. JS Syntax:
    let a = 5;
    let b = 10;

    Can use ' ', " ", ` `
    let c = `${a} Bonboni`

3. Data Types and Variables:
    3.1. Primitive:
        - boolean
        - null
        - Undefined
        - number
        - string
        - symbol - used for unique identifiers e.g.: let a = Symbol('a');
        - bigint
    3.2. Objects(including functions and arrays):
        let object = {name: "Toni"};
        let secondObject = object;
        console.log(object);
        console.log(secondObject);
        secondObject.name = "Makaroni" => both obj will have name = "Makaroni"
        => refenrence data types
    3.3. Creating vars:
        - let .. : - block scope
            can be reassigned after initial assignment
            variable's value can change
            let is used when reassignment is necessary
        - var .. (used for creating variables) - function scope
        - const .. --> immutable - block scope
            cannot be reassigned after initial assignment, remains constant
            variable's value remains fixed

4. Conditional Statements:
    let a = 5;
    let b = 10;
    if (a>b){
        console.log('a is bigger')
    } else { ---> else stays on the same line

    }
    4.1. New operators:
        console.log(1 == '1'); -> True (not strict operator, not depending on the data type)
        console.log(1 === '1'); -> False (strict operator)
        console.log(3 != '3'); -> False
        console.log(3 !== '3'); -> True
        console.log((5 > 7) ? 4 : 10); -> 10 Ternary operator('?' covers True; ':' covers False)

        console.log(typeof a);
    4.2. Conditional Statements:
        - if
        - else
        - else if
    4.3. Swith-case Statements:
        switch (...){
            case ...:
            // code
        }
    4.4. Logical Operators:
        - ! - not
        - && - and
        - || - or

        const isValid = true;
        const isNotValid = false;
        console.log(!isValid);
        console.log(isValid || isNotValid);
    4.5. Truthy and Falsy Values:
        - 'truthy' - a value that coerces to true when evaluated in a boolean context
        - the following values are 'falsy' - false, null, undefined, NaN(not a number), 0, 0n, and ""

5. Loops:
    5.1. For loop:
        for (let i = 1; i <= 5; i++){
            console.log(i);
        }
        for (let i = 10; i > 0; i--){
            console.log(i);
        }
    5.2. While loop:
        let i = 1;
        while (i<=5){
            console.log(i);
            i++;
        }

6. Undefined and Null:
    - undefined: a variable without a value has the value undefined.
        The typeof is also undefined.
        let car; // value is undefined, type is undefined
    - A variable can be emptied, by setting the value to undefined.
        The type will also be undefined.
        let car = undefined; // value is undefined, type is undefined
    - Null is "nothing". It is supposed to be something that does not exist
    - The typeof null is an object

7. Debugging Techniques:
    - Strict mode: limits certain 'sloppy' language features
    - Silent errors will throw Exception instead
        'use strict';            // File-level
        mistypeVariable = 17;   // ReferenceError
        function strict () {
            'use strict';       // Function-level
            mistypeVariable = 17;
        }
```

- Enable by default the modules

8. Methods:
    - To format a number, use the toFixed() method(converts to string)
    grade.toFixed(2); -> 2 is the number of decimal places