Week 3

Exercise 1

In this exercise I have created a function that welcome the employee and shows its salary

```
1    // Defining the function EmployeeInfo
2    function EmployeeInfo(name, Salary) {
3        console.log("Welcome " + name + ", Your monthly salary is " + Salary);
4    }
5
6    console.log("This is my first program");
7
8    var EmpName = "John";
9    var EmpSalary = 50000;
10
11   // Calling the function EmployeeInfo
12   EmployeeInfo(EmpName, EmpSalary);
13   |
```

Output

```
This is my first program
Welcome John, Your monthly salary is 50000
```

Exercise 2

Created an arrow function

```
2    const EmpSkills = (skills) => {
3        console.log("Expert in " + skills);
4    }
5
6    EmpSkills("Java");
7
```

Output :

```
Expert in Java
```

Exercise 3

Demonstrates JavaScript basics with EmployeeInfo and EmpSkills. Imports StudentInfo and Person modules for modularity and uses the os core module to display system information.

Local Module 1 (StudentInfo.js):

Defines and exports constants and arrow functions for student details and grading, showcasing module exports and parameterized functions.

Local Module 2 (Person.js):

Implements a Student class with modern JavaScript syntax and exports it using module.exports.

StudentInfo.js

```javascript
1    const dateofBirth = "12/12/2001";
2    const getStudentName = () => "Deen Alam";
3    const getCampusName = () => "University of london";
4
5    exports.getName = getStudentName;
6    exports.Location = getCampusName;
7    exports.dob = dateofBirth;
8
9    exports.Studentgrade = (marks) => {
10       if (marks > 50 && marks < 70) return "B grade";
11       else return "A grade";
12   };
13
```

Person.js

```javascript
1    class Student {
2        constructor(name, age, email) {
3            this.name = name;
4            this.age = age;
5            this.email = email;
6        }
7        getPersonInfo() {
8            return `Name: ${this.name}, Age: ${this.age}, Email: ${this.email}`;
9        }
10   }
11
12   module.exports = Student;
13
```

index.js

```
1    const student = require('./StudentInfo');
2    const Person = require('./Person');
3
4    // Using functions from StudentInfo.js
5    console.log("Student Name: " + student.getName());
6    console.log(student.Location());
7    console.log(student.dob);
8    console.log("Grade is: " + student.Studentgrade(55));
9
10   // Creating new Person instance
11   const person1 = new Person("Jim", 25, "jim@example.com");
12   console.log("Using Person Module:", person1.getPersonInfo());
13   |
```

Output:

```
Student Name: Deen Alam
University of london
12/12/2001
Grade is: B grade
Using Person Module: Name: Jim, Age: 25, Email: jim@example.com
```

Exercise 4

Utilizes os and util modules to retrieve and display system information like memory, CPU, and uptime.

```
  }
Total Memory: 17.128361984 GB
Free Memory: 8.20281344 GB
CPU: [
  {
    model: 'AMD Ryzen 5 3600 6-Core Processor         ',
    speed: 3600,
    times: {
      user: 3548500,
      nice: 0,
      sys: 2788281,
      idle: 69297734,
      irq: 772406
```