Name: Mukund Kuthe

3rd Year Section B (B1)

Practical 2 (JavaScript)

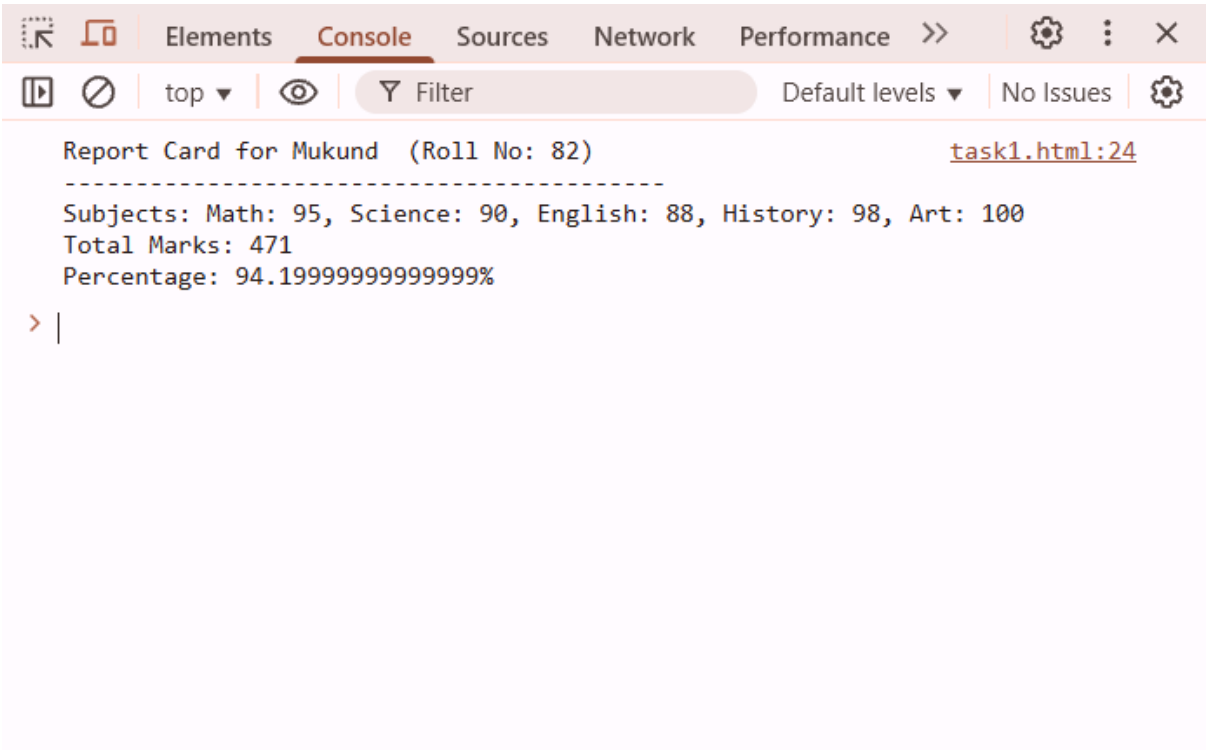
Task 1:

task1.html

File Edit View

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <script>
    const Student={
        name: "Mukund",
        rollno: 082,
        marks: {Math: 95, Science: 90, English: 88, History: 98, Art: 100 },
    };
const {Math: math, Science: science, English: english, History: history, Art: art} = Student.marks;
const total=math + science + english + history + art;
const percentage= (total/500)*100;

const report= `Report Card for ${Student.name}  (Roll No: ${Student.rollno})
----------------------------------------
Subjects: Math: ${math}, Science: ${science}, English: ${english}, History: ${history}, Art: ${art}
Total Marks: ${total}
Percentage: ${percentage}%`;
console.log(report);
</script>
</body>
</html>
```



Task 2:

task2.html

File Edit View

```
<script>
const generateGreeting = (name = "Mukund", role = "Student", location = "Nagpur") => {
  return `Hello ${name}! Your role is ${role} and you are currently in ${location}.`;
};
console.log(generateGreeting());
</script>
```

Elements Console Sources Network 1

top Filter Default levels 1 Issue: 1

```
Hello Mukund! Your role is Student and you are currently in Nagpur.   task2.html:5
>
```

Task 3:

Elements Console Sources Network Performance Memory Application 1

top Filter Default levels 1 Issue: 1

```
> function analyzeData(input) {
    let type = "";
    let mutable = "";

    if (input === null) {
      type = "null";
      mutable = "immutable";
    } else if (Array.isArray(input)) {
      type = "array";
      mutable = "mutable";
    } else if (input instanceof String || Object.prototype.toString.call(input) === "[object String]") {
      type = "string";
      mutable = "immutable";
    } else if (input instanceof Number || Object.prototype.toString.call(input) === "[object Number]") {
      type = "number";
      mutable = "immutable";
    } else if (input instanceof Boolean || Object.prototype.toString.call(input) === "[object Boolean]")
  {
      type = "boolean";
      mutable = "immutable";
    } else if (Object.prototype.toString.call(input) === "[object Undefined]") {
      type = "undefined";
      mutable = "immutable";
    } else if (Object.prototype.toString.call(input) === "[object Symbol]") {
      type = "symbol";
      mutable = "immutable";
    } else if (Object.prototype.toString.call(input) === "[object BigInt]") {
      type = "bigint";
      mutable = "immutable";
    } else if (typeof input === "function" || input instanceof Function) {
      type = "function";
      mutable = "mutable";
    } else if (input instanceof Object) {
      type = "object";
      mutable = "mutable";
    } else {
      type = "unknown";
      mutable = "unknown";
    }
```

```
  console.log(`Type: ${type}`);
  console.log(`Mutability: ${mutable}`);
  console.log(`Summary: The given input is of type '${type}' and it is ${mutable}.`);
}

analyzeData([1, 2, 3]);
analyzeData("Hello");
analyzeData(null);
analyzeData({ key: "value" });
```

```
Type: array                                                    VM70:40
Mutability: mutable                                            VM70:41
Summary: The given input is of type 'array' and it is mutable. VM70:42
Type: string                                                   VM70:40
Mutability: immutable                                          VM70:41
Summary: The given input is of type 'string' and it is immutable. VM70:42
Type: null                                                     VM70:40
Mutability: immutable                                          VM70:41
Summary: The given input is of type 'null' and it is immutable. VM70:42
Type: object                                                   VM70:40
Mutability: mutable                                            VM70:41
Summary: The given input is of type 'object' and it is mutable. VM70:42
undefined
```

Task 4: