

In the Name of Allah

Project Title: Prj 20

Programming Software: Visual Studio Code, Version 1.73.1

Programming language: JavaScript

Project Description :

Mark and John are trying to compare their BMI (Body Mass Index), which is calculated using the formula:
$$\text{BMI} = \text{mass} / \text{height} ** 2 = \text{mass} / (\text{height} * \text{height})$$
 (mass in kg and height in meters).

1. Store Mark's and John's mass and height in variables
2. Calculate both their BMIs using the formula
3. Create a Boolean variable 'markHigherBMI' containing information about whether Mark has a higher BMI than John.

\$ Data 1: Marks weights 78 kg and is 1.69 m tall. John weighs 92 kg and is 1.95m tall.

\$ Data 2: Marks weights 95 kg and is 1.88 m tall. John weighs 85 kg and is 1.76m tall.

Project Solution :

```
const mark = {
  Weight1: 78,
  Weight2: 95,
  Height1: 1.69,
  Height2: 1.88,
};
const john = {
  Weight1: 92,
  Weight2: 85,
  Height1: 1.95,
  Height2: 1.76,
};
const BMI = (mass, height) => mass / height ** 2;
const marksHigherBMI1 =
  BMI(mark.Weight1, mark.Height1) > BMI(john.Weight1, john.Height1);
const marksHigherBMI2 =
  BMI(mark.Weight2, mark.Height2) > BMI(john.Weight2, john.Height2);
if (marksHigherBMI1) {
  console.log(`Based on Data 1 , Mark's BMI is Higher than John's`);
} else console.log(`Based on Data 1 , Johns's BMI is Higher than Mark's`);
if (marksHigherBMI2) {
  console.log(`Based on Data 2 , Mark's BMI is Higher than John's`);
} else console.log(`Based on Data 2 , Johns's BMI is Higher than Mark's`);
```