

# BodyMassIndex #1

The Goal of this program is:

- Take the Users name, height, and weight
- Calculates the Users Body Mass Index (BMI), and tells the User whether they are underweight, normal weight, overweight, obese, or extremely obese..

```
BMI Analyzer (Global Scope)
4  #include <iostream>
5
6  int main()
7  {
8      std::cout << "This is a BMI Analyzer\n";
9      std::cout << "What is your name?\n";
10     std::string name;
11     std::cin >> name;
12
13     std::cout << "Are you entering your height as feet/inches or centimeters, " << name << "? \n";
14     std::string FeetCenti;
15     std::cin >> FeetCenti;
16     int h1;
17     int h2;
18     int w1;
19     int w2;
20
21
22     if (FeetCenti == "feet" || FeetCenti == "inches" || FeetCenti == "ft") {
23         std::cout << "\nEnter your height in feet: ";
24         std::cin >> h1;
25
26     } else if (FeetCenti == "centimeters" || FeetCenti == "cm") {
27         std::cout << "\nEnter your height in centimeters: ";
28         std::cin >> h2;
29
30     } else {
31         std::cout << "\nThat won't work. ";
32         return 0;
33     }
34
35     std::cout << "Are you entering your weight as Kilograms or pounds? ";
36     std::string kilolb;
37     std::cin >> kilolb;
38
39     if (kilolb == "Kilograms" || kilolb == "kg" || kilolb == "kgs") {
40         std::cout << "\nEnter your weight in kilograms: ";
41         std::cin >> w1;
42
43     } else if (kilolb == "lb" || kilolb == "pounds" || kilolb == "lbs") {
44         std::cout << "\nEnter your weight in pounds: ";
45         std::cin >> w2;
46
47     } else {
48         std::cout << "\nThat won't work. ";
49         return 0;
50     }
51
52 }
```

I got this so far, on my own but now I am trying to figure out how to make it so the User can put in their exact height (to remove variances of 5 ft 10 or 5 feet 10

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inches, 5'10 etc). I changed the prompt and asked for the **feet** and **inches** separately so they are two different inputs. Next I did everything else there and I thought about doing a ft/inches into cm converter so the math can be done easier.

```
1  #include <iostream>
2
3  int main()
4  {
5      std::cout << "This is a BMI Analyzer\n";
6      std::cout << "What is your name?\n";
7      std::string name;
8      std::cin >> name;
9
10     std::cout << "Are you entering your height as feet/inches or centimeters, " << name << "? \n";
11     std::string FeetCenti;
12     std::cin >> FeetCenti;
13
14     int h1; //height feet inputted
15     int h2; //height inches inputted
16     double h3; //height in cm
17     double weight1;
18     int w1; //
19     int w2;
20     int w3;
21     double h3Meters;
22
23     if (FeetCenti == "feet" || FeetCenti == "inches" || FeetCenti == "ft") {
24
25         std::cout << "\nEnter your height, what are the feet?: ";
26         std::cin >> h1;
27         std::cout << "\nEnter the inches: ";
28         std::cin >> h2;
29         double height1 = h1 * 30.48;
30         double height2 = h2 * 2.54;
31         double h3 = h1 + h2;
32         //Will convert this to cm
33
34         double h3Meters = h3 / 100.0;
35
36     } else if (FeetCenti == "centimeters" || FeetCenti == "cm") {
37
38         std::cout << "\nEnter your height in centimeters: ";
39         std::cin >> h3;
40
41         double h3Meters = h3 / 100.0;
42
43     } else {
44
45         std::cout << "\nThat won't work. ";
46         return 0;
47     }
48
49     std::cout << "Are you entering your weight as Kilograms or pounds? ";
50     std::string kilolb;
51     std::cin >> kilolb;
52
53     if (kilolb == "Kilograms" || kilolb == "kg" || kilolb == "kgs") {
54
55         std::cout << "\nEnter your weight in kilograms: ";
56         std::cin >> w2;
57
58     } else if (kilolb == "lb" || kilolb == "pounds" || kilolb == "lbs") {
59
60         //Will convert this into kg
61         std::cout << "\nEnter your weight in pounds: ";
62         std::cin >> w2;
63         double weight1 = w2 * 0.4536;
64
65     } else {
66
67         std::cout << "\nThat won't work. ";
68         return 0;
69     }
70
71     int bodyMassIndex = w2 / h3Meters;
72     std::cout << name << ", your BMI (Body Mass Index) is " << bodyMassIndex << "\n";
73
74 }
```

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I now am here, and have to clean up my work a bit. I had to add and change things so I have some data types that are not initialized or set to anything.

```
4 #include <iostream>
5
6 int main()
7 {
8     std::cout << "This is a BMI Analyzer\n";
9     std::cout << "What is your name?\n";
10    std::string name;
11    std::cin >> name;
12
13    std::cout << "Are you entering your height as feet/inches or centimeters, " << name << "? \n";
14    std::string FeetCenti;
15    std::cin >> FeetCenti;
16
17    int h1; //height feet inputted
18    int h2; //height inches inputted
19    double h3; //height in cm
20    double weight1;
21    int w1; //
22    double h3Meters;
23    double height1;
24    double height2;
25
26
27    if (FeetCenti == "feet" || FeetCenti == "inches" || FeetCenti == "ft") {
28
29        std::cout << "\nEnter your height, what are the feet?: ";
30        std::cin >> h1;
31        std::cout << "\nEnter the inches: ";
32        std::cin >> h2;
33        height1 = h1 * 30.48;
34        height2 = h2 * 2.54;
35        h3 = height1 + height2;
36        //Will convert this to cm
37
38        h3Meters = h3 / 100.0;
39
40    } else if (FeetCenti == "centimeters" || FeetCenti == "cm") {
41
42        std::cout << "\nEnter your height in centimeters: ";
43        std::cin >> h3;
44
45        h3Meters = h3 / 100.0;
46
47    } else {
48
49        std::cout << "\nThat won't work. ";
50
51        return 0;
52    }
53
54
55    std::cout << "Are you entering your weight as Kilograms or pounds? ";
56    std::string kilolb;
57    std::cin >> kilolb;
58
59    if (kilolb == "Kilograms" || kilolb == "kg" || kilolb == "kgs") {
60
61        std::cout << "\nEnter your weight in kilograms: ";
62        std::cin >> w1;
63
64    } else if (kilolb == "lb" || kilolb == "pounds" || kilolb == "lbs") {
65
66        //Will convert this into kg
67        std::cout << "\nEnter your weight in pounds: ";
68        std::cin >> w1;
69        weight1 = w1 * 0.4536;
70
71    } else {
72
73        std::cout << "\nThat won't work. ";
74
75        return 0;
76    }
77
78
79
80    double bodyMassIndex;
81    bodyMassIndex = w1 / (h3Meters * h3Meters);
82    std::cout << name << ", your BMI (Body Mass Index) is " << bodyMassIndex << "\n";
83
84
85
86 }
```

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I changed some things around and rebuilt it, now it works fine. Next I have to add the underweight or overweight range.