

8.BMI

Aim:

To calculate the body mass index of the individual students using c program.

Algorithm:

Step 1:Start the program.

Step 2:Get the number of students.

Step 3:Get the height and weight of persons in two-dimensional array

Step 4:calculate Body Mass Index

Step 5:Stop the program.

Program coding:

```
#include<stdio.h>

#include<conio.h>

void main()

{

int stu[100][2];

int index[100];

int i,n;

float h;

clrscr();

printf("enter the no of students:");

scanf("%d",&n);

for(i=0;i<n;i++)

{printf("enter the height and weight of student %d:",i+1);

scanf("%d%d",&stu[i][0],&stu[i][1]);

h=(float)(stu[i][0]/100.0);

index[i]=(float)stu[i][1]/(float)(h*h);

}

printf("\n stu no.\t height\tweight\tBMI\tresult");

for(i=0;i<n;i++)

{
```

```

printf("\n %d\t%d\t%d\t%d\t",stu[i][0],stu[i][1],index[i]);

if(index[i]<15)

printf("sTARVATION\n");

else if(index[i]>14&&index[i]<18)

printf("underweight\n");

else if(index[i]>17&&index[i]<26)

printf("healthy\n");

else if(index[i]>25&&index[i]<31)

printf("over weight\n");

else if(index[i]>30&&index[i]<36)

printf("obese\n");

else

printf(" severe obese\n");

}

getch();

}

```

Output:

```

enter the no of students:4
enter the height and weight of student 1:140 20
enter the height and weight of student 2:140 35
enter the height and weight of student 3:150 45
enter the height and weight of student 4:140 60

  stuno.  height  weight  BMI    result
  140     20      10     2018   sTARVATION
  140     35      17     2018   underweight
  150     45      20     2018   healthy
  140     60      30     2018   over weight
-

```