

**FULL CODE OF THE STUDENT HEALTH TRACKER::**

```
#include <stdio.h>
#include <string.h>

struct Student
{
    int roll, age, sys, dia, hr;
    float height, weight, bmi;
    char name[20], status[30];
    }s[50];

int n=0;

const char* health(float bmi, int sys, int dia, int hr){
    int score=0;

    if(bmi >= 18.5 && bmi < 25)score += 25;
    else if(bmi >= 25 && bmi < 30)score += 15;
    else score += 5;

    if(sys < 120 && dia < 80)score += 25;
    else if(sys < 140 && dia < 90)score += 15;
    else score += 5;

    if(hr >= 60 && hr <= 100)score += 25;
    else score += 10;

    if(score >= 70) return "Excellent";
    if(score >= 50) return "Good";
    if(score >= 30) return "Fair";
    return "Poor";
}

void addStudent(){
    printf("\nRoll:"); scanf("%d",&s[n].roll);
    printf("Name:"); scanf("%s",s[n].name);
    printf("Age:"); scanf("%d",&s[n].age);
    printf("Height(cm):"); scanf("%f",&s[n].height);
    printf("Weight(kg):"); scanf("%f",&s[n].weight);
    printf("Sys BP:"); scanf("%d",&s[n].sys);
    printf("Dia BP:"); scanf("%d",&s[n].dia);
    printf("Heart Rate:"); scanf("%d",&s[n].hr);

    float h=s[n].height / 100.0;
    s[n].bmi=s[n].weight / (h * h);

    strcpy(s[n].status, health(s[n].bmi,s[n].sys,s[n].dia,s[n].hr));
}
```

```

printf("\nAdded! BMI=% .2f | Status=%s\n", s[n].bmi, s[n].status);
n++;
}

void displayAll(){
if (n==0){ printf("\nNo records!\n"); return; }

printf("\nROLL NAME BMI STATUS\n");
for (int i=0; i<n; i++)
printf("%d %s %.1f %s\n", s[i].roll, s[i].name, s[i].bmi, s[i].status);
}

void searchStudent(){
int r;
printf("\nEnter roll:");
scanf("%d", &r);

for (int i=0; i<n; i++)
if (s[i].roll==r){
printf("\nFound!\nName:%s\nBMI: %.2f\nStatus: %s\n",
s[i].name, s[i].bmi, s[i].status);
return;
}
printf("NotFound!\n");
}

int main(){
int ch;
do {
printf("\n1.Add 2.Display 3.Search 4.Exit\nChoice:");
scanf("%d", &ch);

if (ch==1) addStudent();
else if (ch==2) displayAll();
else if (ch==3) searchStudent();
}while(ch!=4);

return 0;
}

```

**Result: output::**

1.Add 2.Display 3.Search 4.Exit  
Choice: 1

Roll:101

*Name:riya  
Age: 19  
Height(cm): 160  
Weight(kg): 52  
Sys BP: 115  
Dia BP: 75  
Heart Rate: 78*

**Added! BMI = 20.31 | Status = Excellent**

**1.Add 2.Display 3.Search 4.Exit**  
*Choice: 1*

*Roll: 102  
Name: arjun  
Age: 20  
Height(cm): 170  
Weight(kg): 78  
Sys BP: 135  
Dia BP: 85  
Heart Rate: 95*

**Added! BMI = 26.99 | Status = Good**

**1.Add 2.Display 3.Search 4.Exit**  
*Choice: 2*

**ROLL NAME BMI STATUS**  
**101 riya 20.3 Excellent**  
**102 arjun 26.99 Good**

**1.Add 2.Display 3.Search 4.Exit**  
*Choice: 3*

**Enter roll: 102**

**Found!**  
*Name: arjun  
BMI: 26.99  
Status: Good*

**1.Add 2.Display 3.Search 4.Exit**  
*Choice: 4*

**====Code Execution Successful====**