

FULL CODE OF THE STUDENT HEALTH TRACKER::

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#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));
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        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("Not Found!\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
SysBP:115
DiaBP:75
HeartRate: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
SysBP:135
DiaBP:85
HeartRate: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 27.0 Good

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

Enterroll:102

Found!
Name:arjun
BMI:26.99
Status:Good

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

=== Code Execution Successful ===