

Aim:

Write a C Program to display grade based on 6 subject marks using an if-else-if ladder.

marks $\geq 90\%$ is grade A

marks $\geq 80\%$ and $< 90\%$ is grade B.

marks $\geq 70\%$ and $< 80\%$ is grade C.

marks $\geq 60\%$ and $< 70\%$ is grade D.

marks $\geq 40\%$ and $< 60\%$ is grade E.

marks $< 40\%$ is grade Fail.

Sample Input and Output:

```
Enter the six subjects marks : 60 50 70 90 55 69
Total marks : 394
Percentage : 65.666664
Grade : D
```

Source Code:

grade.c

```
#include<stdio.h>
void main()
{
    int s1,s2,s3,s4,s5,s6,total;
    float avg;
    printf("Enter the six subjects marks : ");
    scanf ("%d%d%d%d%d%d",&s1,&s2,&s3,&s4,&s5,&s6);
    total=s1+s2+s3+s4+s5+s6;
    avg=(float)total/6;
    printf("Total marks : %d\n",total);
    printf("Percentage : %f\n" ,avg);
    if(avg<40)
    printf("Grade : Fail\n");
    else if(avg<60)
    printf("Grade : E\n");
    else if(avg<70)
    printf("Grade : D\n");
    else if(avg<80)
    printf("Grade : C\n");
    else if(avg<90)
    printf("Grade : B\n");
    else
    printf("Grade : A\n");
}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Enter the six subjects marks : 60 50 70 90 55 69
Total marks : 394
Percentage : 65.666664
Grade : D

Test Case - 2
User Output
Enter the six subjects marks : 100 90 28 45 33 80
Total marks : 376
Percentage : 62.666668
Grade : D

Test Case - 3
User Output
Enter the six subjects marks : 90 89 85 97 79 88
Total marks : 528
Percentage : 88.000000
Grade : B

Test Case - 4
User Output
Enter the six subjects marks : 20 28 30 25 33 38
Total marks : 174
Percentage : 29.000000
Grade : Fail

Test Case - 5
User Output
Enter the six subjects marks : 65 70 75 60 80 85
Total marks : 435
Percentage : 72.500000
Grade : C