



## MAKAUT UNIVERSITY

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# Programming for Problem Solving

October, 2022

### Program 01:

Write a C program to perform Celsius to Fahrenheit Temperature Conversion.

### Code:

```
// Write a C program to perform Celsius to Fahrenheit Temperature  
Conversion.  
  
// Formula :  $F = (C * 1.8) - 32$   
  
#include <stdio.h>  
  
void main(){  
  
float C,F;
```

```
printf("enter temperature in Celcius :\n");  
  
scanf("%f",&C);  
  
F=(C*1.8)+32;  
  
printf("Temperature in Fahrenheit : %.1f",F);  
}
```

## Output:

PS E:\MAKAUT-BCA-Sem-1\Programming Fundamentals\Lab Assgn 2> gcc .\1.c

PS E:\MAKAUT-BCA-Sem-1\Programming Fundamentals\Lab Assgn 2> .\a.exe

enter temperature in Celcius :

38

Temperature in Fahrenheit : 100.4

❖ **Date Of Code Executed: 26/10/2022**

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## Program 02:

Write a C program to perform Fahrenheit to Celsius Temperature Conversion.

### **Code:**

```
// Write a C program to perform Fahrenheit to Celsius Temperature
Conversion.

// Formula:  $C = (F - 32) / 1.8$ 

#include <stdio.h>

void main(){

float C,F;

    printf("enter temperature in Fahrenheit :\n");

    scanf("%f",&F);

    C = (F - 32) / 1.8;

    printf("Temperature in Celsius : %.1f",C);

}
```

**Output:**

```
PS E:\MAKAUT-BCA-Sem-1\Programming Fundamentals\Lab Assgn 2> gcc .\2.c
```

```
PS E:\MAKAUT-BCA-Sem-1\Programming Fundamentals\Lab Assgn 2> .\a.exe
```

```
enter temperature in Fahrenheit :
```

```
100.4
```

```
Temperature in Celsius : 38.0
```

❖ **Date Of Code Executed: 26/10/2022**

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### Program 03:

Enter Marks of Five Subjects and Calculate Total, Average, Percentage using C programming

#### Code:

```
//Enter Marks of Five Subjects and Calculate Total, Average, Percentage
using C programming

#include<stdio.h>

void main(){

    float sub1, sub2, sub3, sub4 ,sub5, total, average, percentage;

    printf("Maximum marks of a subject is 100.\nEnter marks of subject 1:
\n");

    scanf("%f",&sub1);

    printf("Enter marks of subject 2: \n");

    scanf("%f",&sub2);

    printf("Enter marks of subject 3: \n");

    scanf("%f",&sub3);

    printf("Enter marks of subject 4: \n");

    scanf("%f",&sub4);

    printf("Enter marks of subject 5: \n");
```

```
scanf("%f",&sub5);

total=sub1+sub2+sub3+sub4+sub5;

average=total/5;

percentage=(total*100)/500;

if (total>500)

    printf("!!Error: total marks of the five subject is greater than
the maximum marks entered.\n");

Else{

    printf("Total marks obtained is %.1f\n",total);

    printf("Average marks obtained is %.1f\n",average);

    printf("Percentage of marks obtained is %.1f%%\n",percentage);

}

}
```

## Output:

PS E:\MAKAUT-BCA-Sem-1\Programming Fundamentals\Lab Assgn 2> gcc .\3.c

PS E:\MAKAUT-BCA-Sem-1\Programming Fundamentals\Lab Assgn 2> .\a.exe

Maximum marks of a subject is 100.

Enter marks of subject 1:

7

56

Enter marks of subject 2:

65

Enter marks of subject 3:

67

Enter marks of subject 4:

76

Enter marks of subject 5:

57

Total marks obtained is 321.0

Average marks obtained is 64.2

Percentage of marks obtained is 64.2%

❖ **Date Of Code Executed: 26/10/2022**

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### Program 04:

Write a C program to convert Centimeter into Meter and Kilometer.

#### **Code:**

```
#include<stdio.h>

void main(){

    float mtr, km;

    int cm;

    printf("Enter length in Centimetre : \n");

    scanf("%d",&cm);

    mtr=cm/100;

    km=mtr/1000;

    printf("%d centimetre in meter is %.2f meter\n",cm ,mtr);

    printf("%d centimetre in kilometre is %.3f kilometre",cm,km);

}
```



**Output:**

```
PS E:\MAKAUT-BCA-Sem-1\Programming Fundamentals\Lab Assgn 2> gcc .\4.c
```

```
PS E:\MAKAUT-BCA-Sem-1\Programming Fundamentals\Lab Assgn 2> .\a.exe
```

```
Enter length in Centimetre :
```

```
5463700
```

```
5463700 centimetre in meter is 54637.00 meter
```

```
5463700 centimetre in kilometre is 54.637 kilometre
```

❖ **Date Of Code Executed: 28/10/2022**

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## Program 05:

Write a C program to Calculate Simple Interest | Principle, Rate of interest & Time.

### Code:

```
// Write a C program to Calculate Simple Interest | Principle, Rate of
interest & Time.

#include <stdio.h>

void main(){

    float SI, P, R, T;

    printf("Enter principle amount : \n");

    scanf("%f",&P);

    printf("Enter Rate of interest : \n");

    scanf("%f",&R);

    printf("Enter Time in years : \n");

    scanf("%f",&T);

    SI=P*T*R;

    printf("Simple Interest = %.2f",SI/100);

}
```

**Output:**

PS E:\MAKAUT-BCA-Sem-1\Programming Fundamentals\Lab Assgn 2> .\a.exe

Enter principle amount :

546

Enter Rate of interest :

12

Enter Time in years :

5

Simple Interest = 327.60

❖ **Date Of Code Executed: 28/10/2022**

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