

Practicle 1

Program 1:

Code:

```
/*    Program1 : WAP to take check ehether the input is a leap year or not
*/

#include<stdio.h>

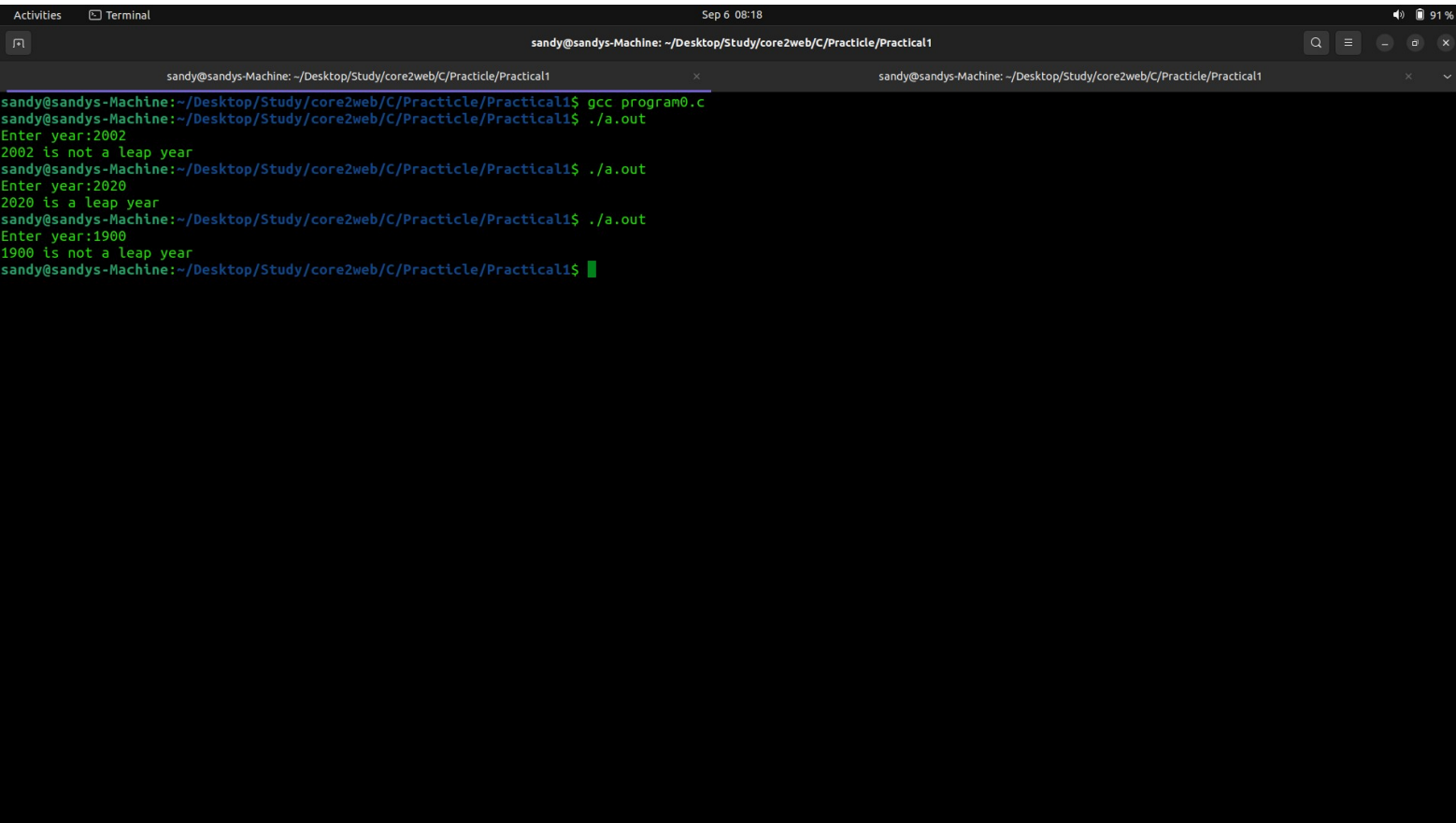
void main() {

    int year;

    printf("Enter year:");
    scanf("%d",&year);

    if( (year%400==0) || ((year%4 == 0) && (year%100!=0)))
        printf("%d is a leap year\n",year);
    else
        printf("%d is not a leap year\n",year);

}
```



The screenshot shows a terminal window titled "Terminal" with the date and time "Sep 6 08:18". The terminal displays the execution of the C program. The user enters the year 2002, and the program outputs "2002 is not a Leap year". The user then enters 2020, and the program outputs "2020 is a leap year". Finally, the user enters 1900, and the program outputs "1900 is not a leap year". The terminal window has a dark background and a light-colored text.

```
sandy@sandys-Machine: ~/Desktop/Study/core2web/C/Practicle/Practical1
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$ gcc program0.c
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$ ./a.out
Enter year:2002
2002 is not a Leap year
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$ ./a.out
Enter year:2020
2020 is a leap year
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$ ./a.out
Enter year:1900
1900 is not a leap year
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$
```

Program 2:

Code:

```
/*      Program2 WAP to find max among 3 numbers
 *
 * */

#include<stdio.h>

void main() {

    int num1,num2,num3;

    printf("Enter three numbers :");
    scanf("%d %d %d",&num1,&num2,&num3);
    if(num1 == num2 && num1 == num3) {
        printf("%d , %d and %d are eual numbers\n",num1,num2,num3);

    }else {

        if(num1 > num2 && num1 > num2)
            printf("max number is %d\n",num1);
        else if(num2 > num3)
            printf("max number is %d\n",num2);
        else
            printf("max number is %d\n",num3);

    }

}
```



The screenshot shows a terminal window titled "Terminal" with the date and time "Sep 6 08:21". The terminal displays the execution of the C program. The user enters "10 5 2" and the output is "max number is 10". The terminal window has a dark background and a light-colored text. The user's prompt is "sandy@sandys-Machine: ~/Desktop/Study/core2web/C/Practicle/Practical1". The output is "max number is 10". The terminal window has a title bar with "Activities" and "Terminal" buttons. The terminal window has a search bar and a close button. The terminal window has a status bar showing "89%".

Program 3:

Code:

```
/*
 *   Program2 WAP to find min among 3 numbers
 * */

#include<stdio.h>

void main() {

    int num1,num2,num3;

    printf("Enter three numbers :");
    scanf("%d %d %d",&num1,&num2,&num3);
    if(num1 == num2 && num1 == num3) {
        printf("%d , %d and %d are eual numbers\n",num1,num2,num3);
    }else {

        if(num1 < num2 && num1 < num2)
            printf("min number is %d\n",num1);
        else if(num2 < num3)
            printf("min number is %d\n",num2);
        else
            printf("min number is %d\n",num3);
    }

}
```



The screenshot shows a terminal window titled "Terminal" with a timestamp of "Sep 6 08:22". The terminal displays the execution of the C program. The user enters three numbers: 10, 20, and 15. The program outputs "min number is 10".

```
sandy@sandys-Machine: ~/Desktop/Study/core2web/C/Practicle/Practical1
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$ ./a.out
Enter three numbers :10 20 15
min number is 10
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$
```

Program 4:

Code:

```
/*
 *   program 4:write a program according to the month number print the no of days in that
 *   months
 */

#include<stdio.h>

void main() {

    int month;

    printf("Enter month:");
    scanf("%d",&month);

    switch(month) {

        case 1:
            printf("January has 31 days\n");
            break;
        case 2:
            printf("February has 28 or 29 days\n");
            break;
        case 3:
            printf("March has 31 days\n");
            break;
        case 4:
            printf("April has 30 days\n");
            break;
        case 5:
            printf("May has 31 days\n");
            break;
        case 6:
            printf("June has 30 days\n");
            break;
        case 7:
            printf("July has 31 days\n");
            break;
        case 8:
            printf("August has 31 days\n");
            break;
        case 9:
            printf("September has 30 days\n");
            break;
        case 10:
            printf("October has 31 days\n");
            break;
        case 11:
```

```

        printf("November has 30 days\n");
        break;
    case 12:
        printf("December has 31 days\n");
        break;
    default:
        printf("You entered invalid onth\n");
        break;
}

```

The screenshot shows a terminal window with the following content:

```

sandy@sandys-Machine: ~/Desktop/Study/core2web/C/Practicle/Practical1
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$ ./a.out
Enter three numbers :10 20 15
min number is 10
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$ gcc program3.c
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$ ./a.out
Enter month:6
June has 30 days
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$ ./a.out
Enter month:2
February has 28 or 29 days
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$ █

```

Program 5:

Code:

```

/*
 * Program 5: Write a program that takes a number from 0 to 5 and prints its spelling
 *           if the number is greater than 5 print entered number is greater than 5
 */

#include<stdio.h>

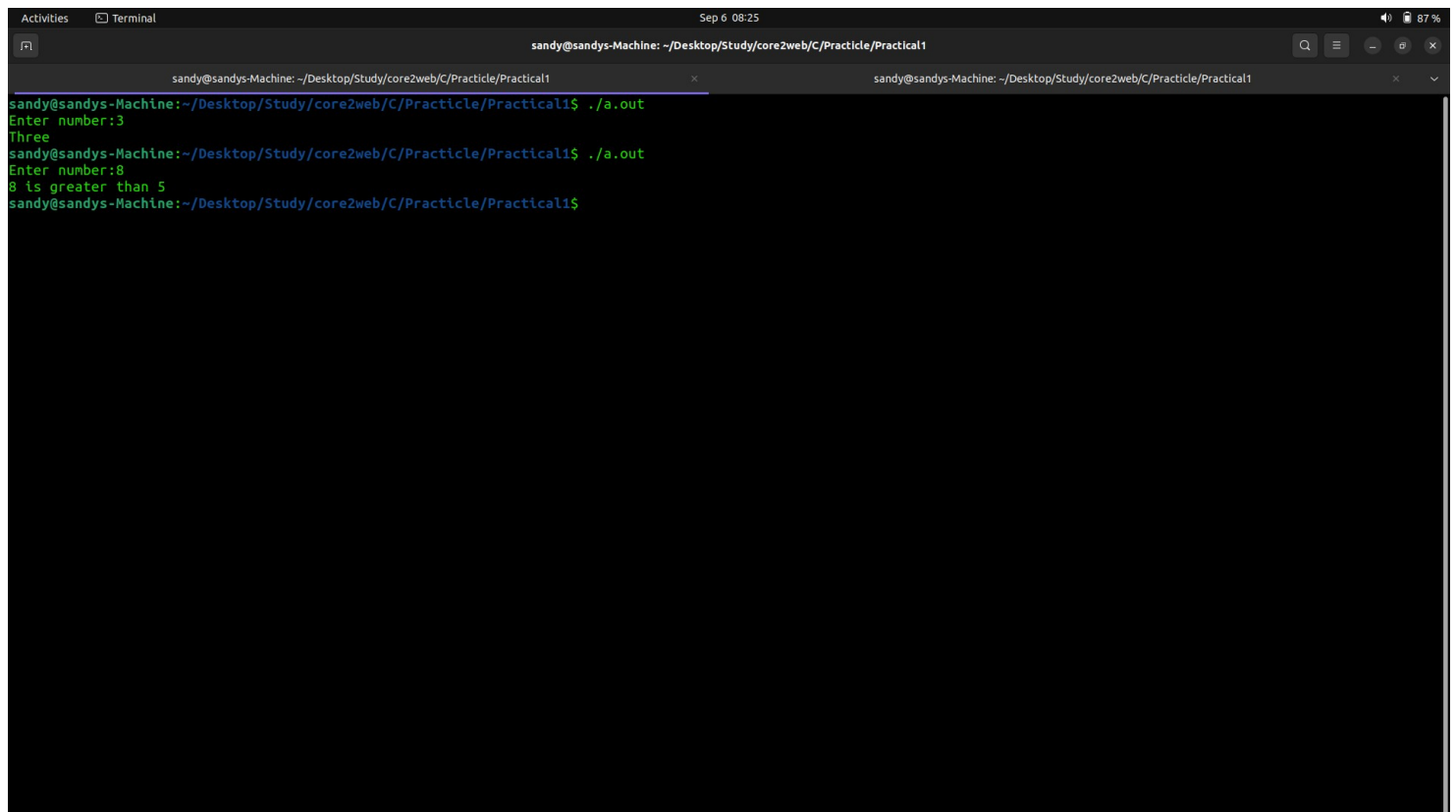
void main() {
    int num;

    printf("Eter number:");

```

```
scanf("%d",&num);
switch(num) {
    case 0:
        printf("Zero\n");
        break;
    case 1:
        printf("One\n");
        break;
    case 2:
        printf("Two\n");
        break;
    case 3:
        printf("Three\n");
        break;
    case 4:
        printf("Four\n");
        break;
    case 5:
        printf("Five\n");
        break;

    default:
        if(num>5)
            printf("%d is greater than 5\n",num);
        else
            printf("Enter number greater than 0\n");
        break;
}}
```



```
Activities Terminal Sep 6 08:25
sandy@sandys-Machine: ~/Desktop/Study/core2web/C/Practicle/Practical1
sandy@sandys-Machine: ~/Desktop/Study/core2web/C/Practicle/Practical1
sandy@sandys-Machine: ~/Desktop/Study/core2web/C/Practicle/Practical1$ ./a.out
Enter number:3
Three
sandy@sandys-Machine: ~/Desktop/Study/core2web/C/Practicle/Practical1$ ./a.out
Enter number:8
8 is greater than 5
sandy@sandys-Machine: ~/Desktop/Study/core2web/C/Practicle/Practical1$
```

Program 6:

Code:

```
/*
 *   Program 6:   WAP to get 10 nubers from user and fint thei avg and sum
 */

#include<stdio.h>

void main() {

    int num,sum=0;
    float avg;

    for(int i=1;i<=10;i++) {

        printf("Enter number %d:",i);
        scanf("%d",&num);

        sum = sum + num;

    }

    avg = (float)sum / 10;
    printf("Sum:%d\nAverage:%.2f\n",sum,avg);
}
```



The screenshot shows a terminal window titled "Terminal" with the date and time "Sep 6 08:27". The user is logged in as "sandy" on a machine named "sandys-Machine". The current directory is "~/Desktop/Study/core2web/C/Practicle/Practical1". The user has executed the command `./a.out`. The program prompts for 10 numbers, which are entered as 1:90, 2:90, 3:80, 4:56, 5:34, 6:23, 7:80, 8:90, 9:100, and 10:89. The program then displays the sum as 732 and the average as 73.20.

```
sandy@sandys-Machine: ~/Desktop/Study/core2web/C/Practicle/Practical1
sandy@sandys-Machine: ~/Desktop/Study/core2web/C/Practicle/Practical1$ ./a.out
Enter number 1:90
Enter number 2:90
Enter number 3:80
Enter number 4:56
Enter number 5:34
Enter number 6:23
Enter number 7:80
Enter number 8:90
Enter number 9:100
Enter number 10:89
Sum: 732
Average: 73.20
sandy@sandys-Machine: ~/Desktop/Study/core2web/C/Practicle/Practical1$
```

Program 7:

Code:

```
/*
 *   Program 7: WAP to check weather given input is a pythagorean triplate or not
 */

#include<stdio.h>

void main() {

    int a,b,c;

    printf("Enter value of a ,b and c :");
    scanf("%d %d %d",&a,&b,&c);

    int hypo;

    if(a>b && a>c ) {
        hypo = a;
        a = b;
        b = c;
    }
    else if(b>c) {

        hypo = b;
        b = c;
    }else {

        hypo = c;
    }

    if(a*a + b*b == hypo*hypo) {

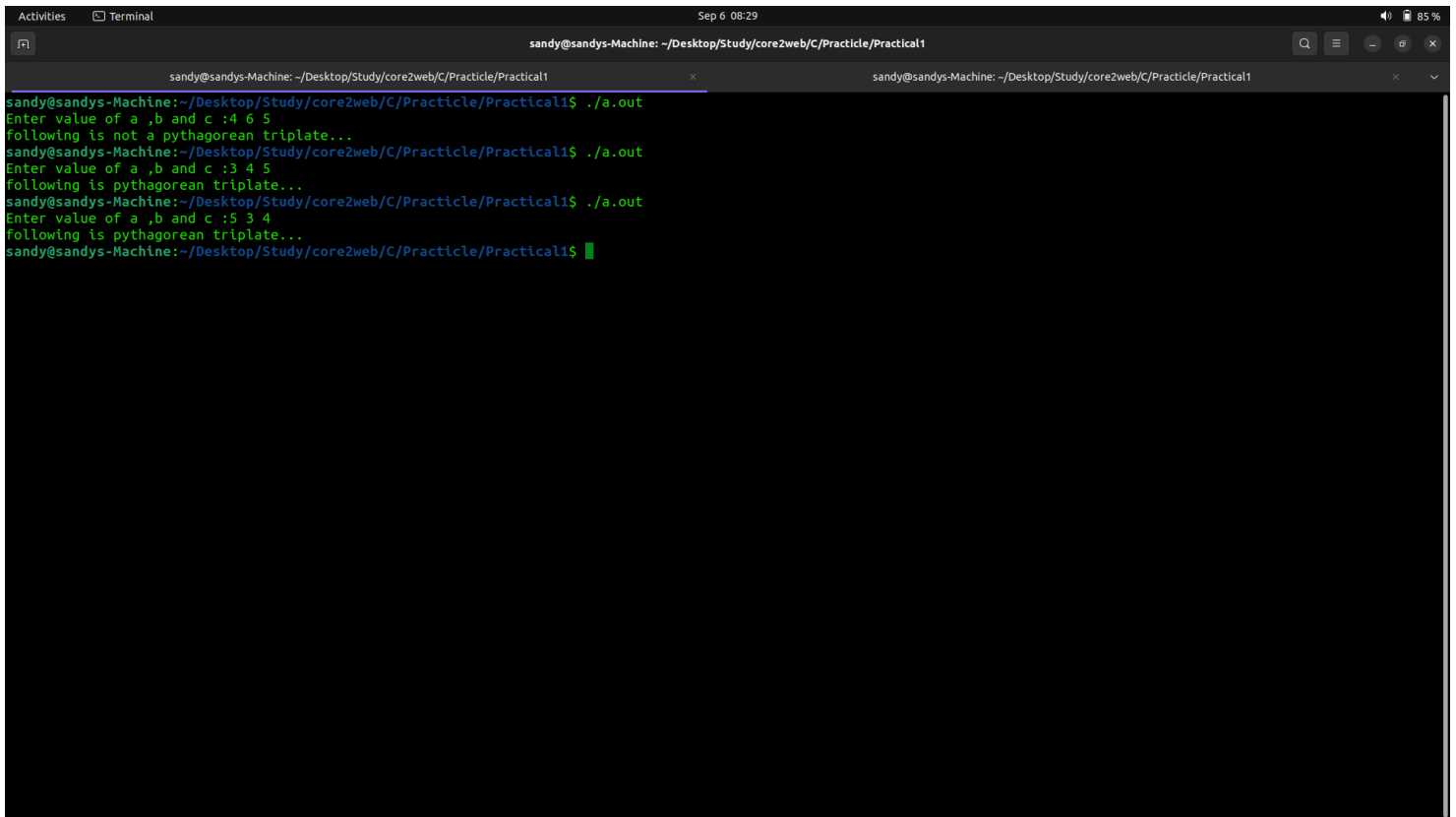
        printf("following is pythagorean triplate...\n");

    }else {

        printf("following is not a pythagorean triplate...\n");

    }

}
```

```
sandy@sandys-Machine: ~/Desktop/Study/core2web/C/Practicle/Practical1
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$ ./a.out
Enter value of a ,b and c :4 6 5
following is not a pythagorean triplate...
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$ ./a.out
Enter value of a ,b and c :3 4 5
following is pythagorean triplate...
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$ ./a.out
Enter value of a ,b and c :5 3 4
following is pythagorean triplate...
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$
```

Program 8:

Code:

```
/*
 *   program 8 : WAP taht takes angles of a triangle from user and print weather the angle is
 *   valid or not
 */

#include<stdio.h>

void main() {

    int angle1,angle2,angle3;

    printf("Enter angle1:");
    scanf("%d",&angle1);

    printf("Enter angle2:");
    scanf("%d",&angle2);

    printf("Enter angle3:");
    scanf("%d",&angle3);

    if(angle1+angle2+angle3 == 180)
```

```

        printf("The is a valid triangle\n");
    else
        printf("The is not a valid triangle\n");
}

```

```

sandy@sandys-Machine: ~/Desktop/Study/core2web/C/Practicle/Practical1
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$ ./a.out
Enter angle1:60
Enter angle2:60
Enter angle3:60
The is a valid triangle
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$ ./a.out
Enter angle1:120
Enter angle2:30
Enter angle3:30
The is a valid triangle
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$ ./a.out
Enter angle1:150
Enter angle2:30
Enter angle3:30
The is not a valid triangle
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$

```

Program 9:

Code:

```

/*
 *   Program 9: Print all divisors of entered number
 */

#include<stdio.h>

void main() {

    int num;

    printf("Enter a number:");
    scanf("%d",&num);

    if(num<=0) {

```

```

        printf("Enter positive numbers only...\n");
    }else {

        printf("All divisors of %d are:\n",num);
        for(int i=1;i<=num/2;i++) {

            if(num%i==0)
                printf("%d\n",i);

        }

    }

}

```

```

sandy@sandys-Machine: ~/Desktop/Study/core2web/C/Practicle/Practical1
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$ gcc program8.c
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$ ./a.out
Enter a number:10
All divisors of 10 are:
1
2
5
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$ ./a.out
Enter a number:50
All divisors of 50 are:
1
2
5
10
25
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$

```

Program 10:

Code:

```

/*
 *   Program 10: WAP take two characters if these characters are equal then print them as
it is but if they are unequal then print their difference
 */

#include<stdio.h>

void main() {

    char ch1,ch2;

```

```

printf("Enter character 1:");
scanf("%c",&ch1);

printf("Enter character 2:");
scanf(" %c",&ch2);

if(ch1 == ch2)
    printf("ch1:%c\tch2:%c\n",ch1,ch2);
else {

    if(ch1>ch2)
        printf("The difference between %c and %c is :%d\n",ch1,ch2,ch1-
ch2);
    else
        printf("The difference between %c and %c is :%d\n",ch1,ch2,ch2-
ch1);
    }
}

```

```

Activities Terminal Sep 6 08:32
sandy@sandys-Machine: ~/Desktop/Study/core2web/C/Practicle/Practical1
sandy@sandys-Machine: ~/Desktop/Study/core2web/C/Practicle/Practical1
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$ gcc program9.c
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$ ./a.out
Enter character 1:a
Enter character 2:a
ch1:a ch2:a
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$ ./a.out
Enter character 1:A
Enter character 2:B
The difference between A and B is :1
sandy@sandys-Machine:~/Desktop/Study/core2web/C/Practicle/Practical1$

```