

**<\*> To find the Maxima & Minima of 3 numbers using Ternary Operator.**

**>>> Syntax :**

```
/* MIN & MAX of 3 NO.s using Ternary Operator */
```

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

```
#include <time.h>
```

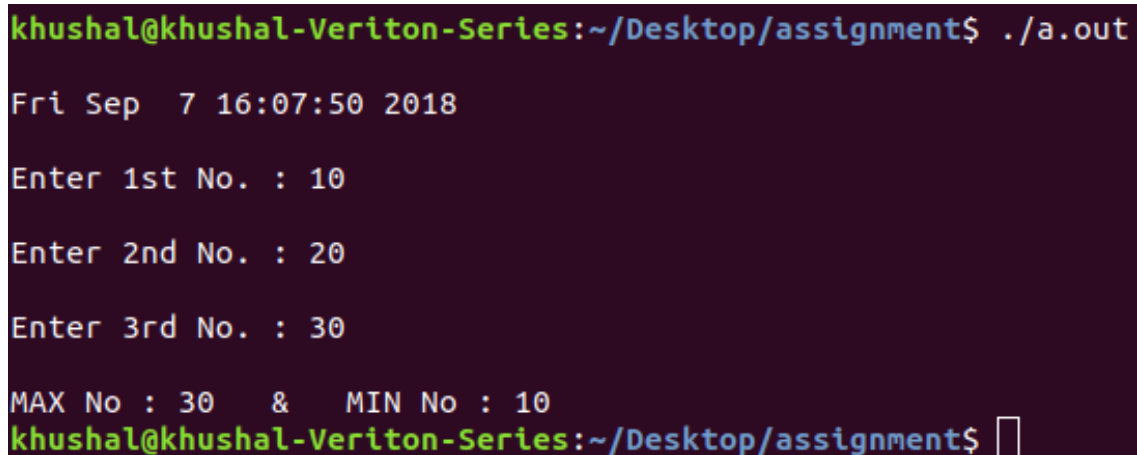
```
void main()
```

```
{
    int min,max,a,b,c;
    timestamp();
    printf("Enter 1st No. : ");
    scanf("%d",&a);
    printf("\nEnter 2nd No. : ");
    scanf("%d",&b);
    printf("\nEnter 3rd No. : ");
    scanf("%d",&c);
    max = a>b ? (a>c ? a : c) : (b>c ? b : c);
    min = a<b ? (a<c ? a : c) : (b<c ? b : c);
    printf("\nMAX No : %d & MIN No : %d\n",max,min);
}
```

```
void timestamp()
```

```
{
    time_t clk = time(NULL);
    printf("\n%s\n", ctime(&clk));
}
```

**>>> Output :**



```
khushal@khushal-Veriton-Series:~/Desktop/assignment$ ./a.out
Fri Sep  7 16:07:50 2018
Enter 1st No. : 10
Enter 2nd No. : 20
Enter 3rd No. : 30
MAX No : 30 & MIN No : 10
khushal@khushal-Veriton-Series:~/Desktop/assignment$
```

**<\*> To print the ASCII values.**

**>>> Syntax :**

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

```
#include<time.h>
```

```
int main(void)
```

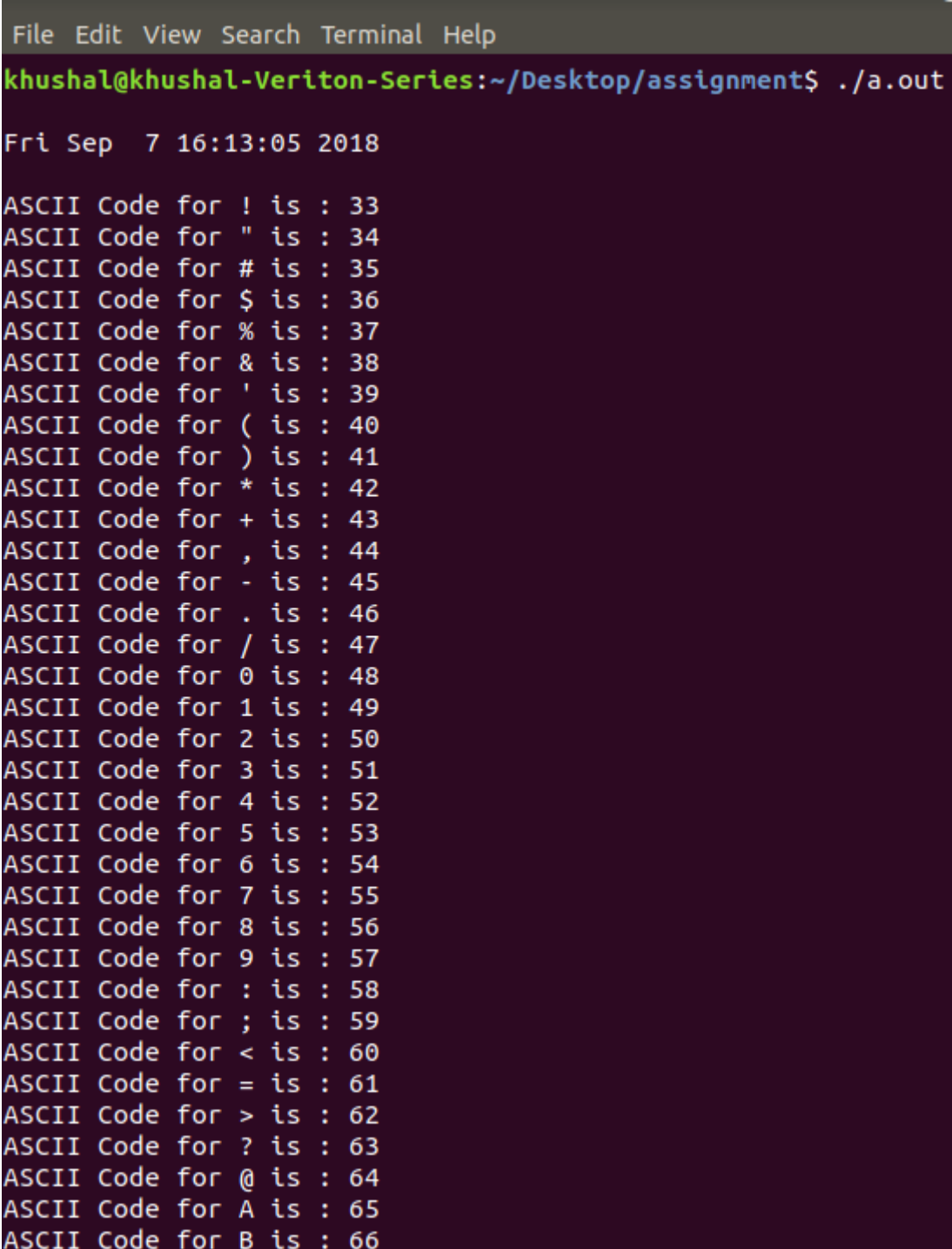
```

{
    timestamp();
    for(int i=33;i<127;i++)
        printf("ASCII Code for %c is : %d\n",i,i);
    return 0;
}

void timestamp()
{
    time_t clk = time(NULL);
    printf("\n%s\n", ctime(&clk));
}

```

>>> **Output :**



```

File Edit View Search Terminal Help
khushal@khushal-Veriton-Series:~/Desktop/assignment$ ./a.out

Fri Sep  7 16:13:05 2018

ASCII Code for ! is : 33
ASCII Code for " is : 34
ASCII Code for # is : 35
ASCII Code for $ is : 36
ASCII Code for % is : 37
ASCII Code for & is : 38
ASCII Code for ' is : 39
ASCII Code for ( is : 40
ASCII Code for ) is : 41
ASCII Code for * is : 42
ASCII Code for + is : 43
ASCII Code for , is : 44
ASCII Code for - is : 45
ASCII Code for . is : 46
ASCII Code for / is : 47
ASCII Code for 0 is : 48
ASCII Code for 1 is : 49
ASCII Code for 2 is : 50
ASCII Code for 3 is : 51
ASCII Code for 4 is : 52
ASCII Code for 5 is : 53
ASCII Code for 6 is : 54
ASCII Code for 7 is : 55
ASCII Code for 8 is : 56
ASCII Code for 9 is : 57
ASCII Code for : is : 58
ASCII Code for ; is : 59
ASCII Code for < is : 60
ASCII Code for = is : 61
ASCII Code for > is : 62
ASCII Code for ? is : 63
ASCII Code for @ is : 64
ASCII Code for A is : 65
ASCII Code for B is : 66

```

```

File Edit View Search Terminal
ASCII Code for A is : 65
ASCII Code for B is : 66
ASCII Code for C is : 67
ASCII Code for D is : 68
ASCII Code for E is : 69
ASCII Code for F is : 70
ASCII Code for G is : 71
ASCII Code for H is : 72
ASCII Code for I is : 73
ASCII Code for J is : 74
ASCII Code for K is : 75
ASCII Code for L is : 76
ASCII Code for M is : 77
ASCII Code for N is : 78
ASCII Code for O is : 79
ASCII Code for P is : 80
ASCII Code for Q is : 81
ASCII Code for R is : 82
ASCII Code for S is : 83
ASCII Code for T is : 84
ASCII Code for U is : 85
ASCII Code for V is : 86
ASCII Code for W is : 87
ASCII Code for X is : 88
ASCII Code for Y is : 89
ASCII Code for Z is : 90
ASCII Code for [ is : 91
ASCII Code for \ is : 92
ASCII Code for ] is : 93
ASCII Code for ^ is : 94
ASCII Code for _ is : 95
ASCII Code for ` is : 96
ASCII Code for a is : 97
ASCII Code for b is : 98
ASCII Code for c is : 99
ASCII Code for d is : 100
ASCII Code for e is : 101
ASCII Code for f is : 102

```

```

File Edit View Search Terminal Help
ASCII Code for Z is : 90
ASCII Code for [ is : 91
ASCII Code for \ is : 92
ASCII Code for ] is : 93
ASCII Code for ^ is : 94
ASCII Code for _ is : 95
ASCII Code for ` is : 96
ASCII Code for a is : 97
ASCII Code for b is : 98
ASCII Code for c is : 99
ASCII Code for d is : 100
ASCII Code for e is : 101
ASCII Code for f is : 102
ASCII Code for g is : 103
ASCII Code for h is : 104
ASCII Code for i is : 105
ASCII Code for j is : 106
ASCII Code for k is : 107
ASCII Code for l is : 108
ASCII Code for m is : 109
ASCII Code for n is : 110
ASCII Code for o is : 111
ASCII Code for p is : 112
ASCII Code for q is : 113
ASCII Code for r is : 114
ASCII Code for s is : 115
ASCII Code for t is : 116
ASCII Code for u is : 117
ASCII Code for v is : 118
ASCII Code for w is : 119
ASCII Code for x is : 120
ASCII Code for y is : 121
ASCII Code for z is : 122
ASCII Code for { is : 123
ASCII Code for | is : 124
ASCII Code for } is : 125
ASCII Code for ~ is : 126
khushal@khushal-Veriton-Series:

```

<\*> To check for the Leap Year.

>>> Syntax :

```

#include<stdio.h>
#include<time.h>

```

```

int main(void)
{
    int year;
    timestamp();
}

```

```

printf("Enter the Year :");
scanf("%d",&year);
if(year%100==0)
{
    if(year%400==0)
        printf("\n%d is a Leap Year!\n\n",year);
    else
        printf("\n%d is NOT a Leap Year!\n\n",year);
}
else
{
    if(year%4==0)
        printf("\n%d is a Leap Year!\n\n",year);
    else
        printf("\n%d is NOT a Leap Year!\n\n",year);
}
return 0;
}

void timestamp()
{
    time_t clk = time(NULL);
    printf("\n%s\n", ctime(&clk));
}

```

>>> **Output :**

```

khushal@khushal-Veriton-Series:~/Desktop/assignment$ ./a.out
Fri Sep  7 16:19:45 2018
Enter the Year :2100
2100 is NOT a Leap Year!

khushal@khushal-Veriton-Series:~/Desktop/assignment$ ./a.out
Fri Sep  7 16:19:55 2018
Enter the Year :2016
2016 is a Leap Year!

khushal@khushal-Veriton-Series:~/Desktop/assignment$ █

```

<\*> To print the size of variables.

>>> **Syntax :**

```

/* Long & Short Int size */

#include<stdio.h>

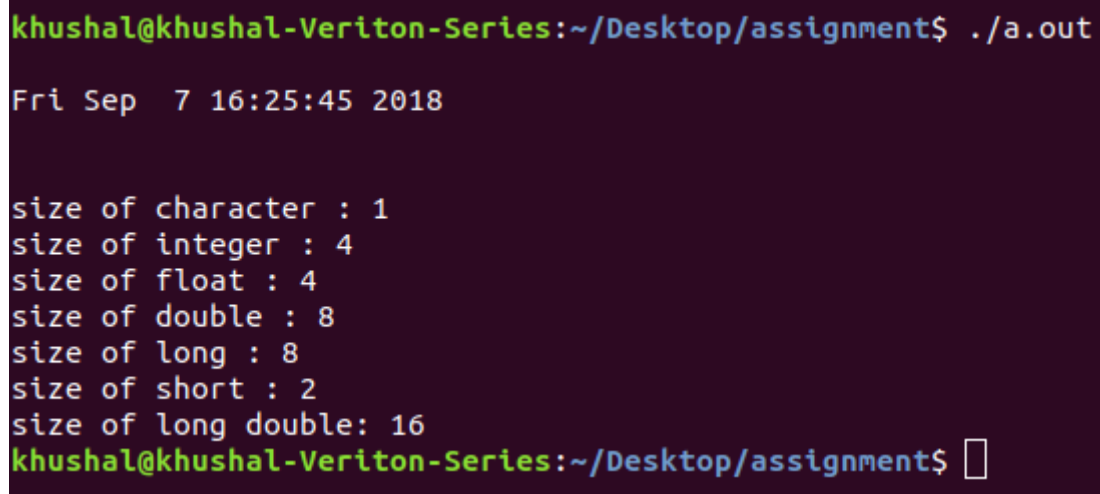
```

```
#include<time.h>

int main(void)
{
    timestamp();
    printf("\nsize of character : %ld",sizeof(char));
    printf("\nsize of integer : %ld",sizeof(int));
    printf("\nsize of float : %ld",sizeof(float));
    printf("\nsize of double : %ld",sizeof(double));
    printf("\nsize of long : %ld",sizeof(long));
    printf("\nsize of short : %ld",sizeof(short));
    printf("\nsize of long double: %ld\n",sizeof(long double));
    return 0;
}

void timestamp()
{
    time_t clk = time(NULL);
    printf("\n%s\n", ctime(&clk));
}
```

>>> **Output :**



```
khushal@khushal-Veriton-Series:~/Desktop/assignment$ ./a.out
Fri Sep 7 16:25:45 2018
size of character : 1
size of integer : 4
size of float : 4
size of double : 8
size of long : 8
size of short : 2
size of long double: 16
khushal@khushal-Veriton-Series:~/Desktop/assignment$
```

<\*> **To print the Fibonacci Series (as per the user input) .**

>>> **Syntax :**

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

int main(void)
{
    int count,a=1,b=1,i=1;
    timestamp();
    printf("Enter the Count upto which the fibonacci series required : ");
    scanf("%d",&count);
    printf("\nThe fibonacci series is : \n%d",b);
```

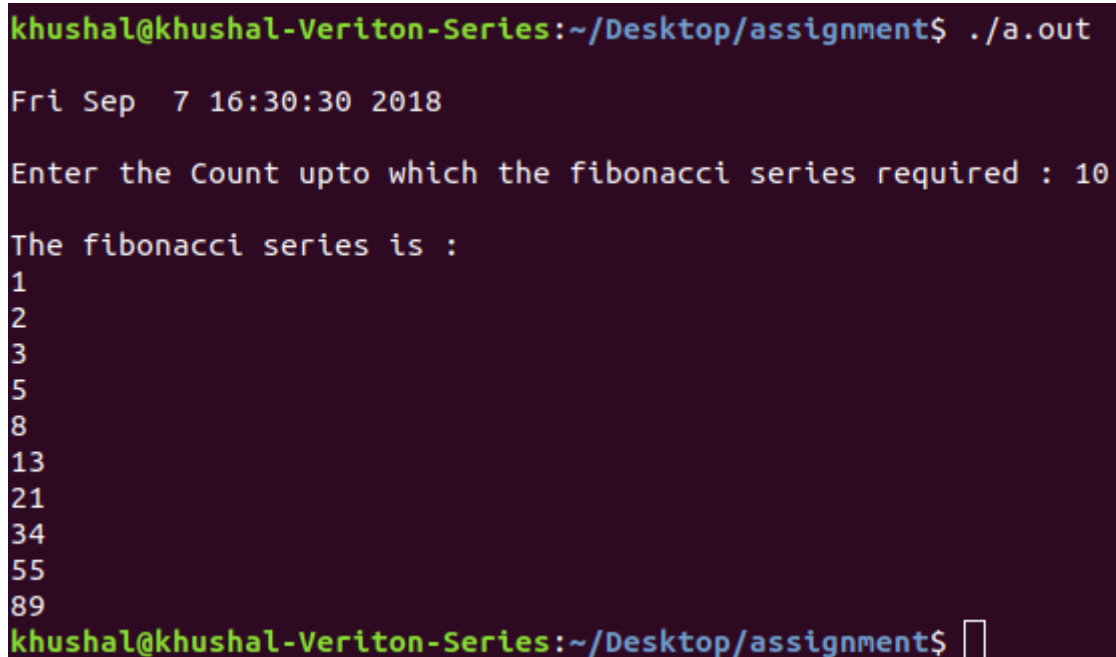
```

while(i<count)
{
    b=a+b;
    a=b-a;
    printf("\n%d",b);
    i++;
}printf("\n");
return 0;
}

void timestamp()
{
    time_t clk = time(NULL);
    printf("\n%s\n", ctime(&clk));
}

```

>>> **Output :**



```

khushal@khushal-Veriton-Series:~/Desktop/assignment$ ./a.out
Fri Sep 7 16:30:30 2018
Enter the Count upto which the fibonacci series required : 10
The fibonacci series is :
1
2
3
5
8
13
21
34
55
89
khushal@khushal-Veriton-Series:~/Desktop/assignment$ 

```

<\*> **To print the Factorial of the entered number.**

>>> **Syntax :**

```
/*      To calculate the factorial of the entered number      */
```

```

#include<stdio.h>
#include<time.h>

```

```

int main(void)
{
    int num,fact,i=1;
    timestamp();

```

```

printf("Enter the Number : ");
scanf("%d",&num);
fact=num;
while(i<num)
{
    fact=fact*i;
    i++;
}
printf("\nFactorial of the entered number is : %d\n\n",fact);
return 0;
}

void timestamp()
{
    time_t clk = time(NULL);
    printf("\n%s\n", ctime(&clk));
}

```

>>> **Output :**

```

khushal@khushal-Veriton-Series:~/Desktop/assignment$ ./a.out
Fri Sep  7 16:34:08 2018
Enter the Number : 5
Factorial of the entered number is : 120
khushal@khushal-Veriton-Series:~/Desktop/assignment$ ./a.out
Fri Sep  7 16:34:12 2018
Enter the Number : 10
Factorial of the entered number is : 3628800
khushal@khushal-Veriton-Series:~/Desktop/assignment$ 

```

<\*> **To perform Integer, String & Float input formatting.**

>>> **Syntax :**

/\* INT ,STR ,Float formatting \*/

```

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

```

```

int main(void)
{
    int num1,choice;
    char name[50];
    float num2;

```

```

timestamp();
printf("\n 1. Integer \n 2. String \n 3. Float \n");
printf("\n Enter your Choice : ");
scanf("%d",&choice);
switch(choice)
{
case 1:
    printf("\n1. Enter Number (INT) : ");
    scanf("%d",&num1);
    printf("\nEntered Number : %d",num1);
    printf("\nStarting with blanks : %10d",num1);
    printf("\nStarting with zeros : %010d",num1);
    printf("\nDifferent radices :: hexadecimal-%#x   octal-%#o\n\n",num1,num1);
    break;

case 2:
    printf("\n2. Enter Name : ");
    scanf("%s",&name);
    printf("\nEntered Name : %s",name);
    printf("\nStarting with blanks : %10s",name);
    printf("\nStarting 4 digits only : %.4s\n\n",name);
    break;

case 3:
    printf("\n3. Enter Number (FLOAT) : ");
    scanf("%f",&num2);
    printf("\nEntered Number : %f",num2);
    printf("\nStarting 2 decimals only : %0.2f",num2);
    printf("\nStarting with zeros : %010f",num2);
    printf("\nWth exp. : %0.4f %+.0e \n\n",num2);
    break;

}
return 0;
}

void timestamp()
{
    time_t clk = time(NULL);
    printf("\n%s\n", ctime(&clk));
}

```

>>> **Output :**

```

khushal@khushal-Veriton-Series:~/Desktop/assignment$ ./a.out
Fri Sep  7 16:55:28 2018

1. Integer
2. String
3. Float

Enter your Choice : 1

1. Enter Number (INT) : 100

Entered Number : 100
Starting with blanks :          100
Starting with zeros : 0000000100
Different radices :: hexadecimal-0x64   octal-0144

khushal@khushal-Veriton-Series:~/Desktop/assignment$ ./a.out

```



```
khushal@khushal-Veriton-Series:~/Desktop/assignment$ ./a.out
Fri Sep  7 16:55:33 2018

1. Integer
2. String
3. Float

Enter your Choice : 2

2. Enter Name : khushal

Entered Name : khushal
Starting with blanks :   khushal
Starting 4 digits only : khus
```

```
khushal@khushal-Veriton-Series:~/Desktop/assignment$ ./a.out
Fri Sep  7 16:55:40 2018

1. Integer
2. String
3. Float

Enter your Choice : 3

3. Enter Number (FLOAT) : 3.148796

Entered Number : 3.148796
Starting 2 decimals only : 3.15
Starting with zeros : 003.148796
Wth exp. : 3.1488 +1e-129

khushal@khushal-Veriton-Series:~/Desktop/assignment$ █
```

**<\*> To perform Multiplication & Division without using operators.**

**>>> Syntax :**

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

```
#include<time.h>
```

```
int main(void)
```

```
{
```

```
    float num1,num2,prod=0,qot=0;
```

```
    int choice;
```

```
    timestamp();
```

```
    printf("\nTo perform :\n1.[a*b] \n2.[a/b] ");
```

```
    printf("\nEnter the Choice:");
```

```
    scanf("%d",&choice);
```

```
    switch(choice)
```

```
    {
```

```
    case 1:
```

```
        printf("\nEnter the Number1 (a):");
```

```
        scanf("%f",&num1);
```

```
        printf("\nEnter the Number2 (b):");
```

```
        scanf("%f",&num2);
```

```

        for(int i=1;i<=num2;i++)
        {
            prod+=num1;
        }
        printf("\nProduct :: %f\n",prod);
        break;
    case 2:
        printf("\nEnter the Divisor (a):");
        scanf("%f",&num1);
        printf("\nEnter the Divident (b):");
        scanf("%f",&num2);
        for(int i=1;num1>=num2;i++)
        {
            num1-=num2;
            qot++;
        }
        printf("\nQuotient : %f & Remainder : %f \n\n",qot,num1);
        break;
    }
return 0;
}

void timestamp()
{
    time_t clk = time(NULL);
    printf("\n%s\n", ctime(&clk));
}

```

>>> **Output :**

```

khushal@khushal-Veriton-Series:~/Desktop/assignment$ ./a.out
Fri Sep  7 17:13:10 2018

To perform :
1.[a*b]
2.[a/b]
Enter the Choice:1

Enter the Number1 (a):15

Enter the Number2 (b):20

Product :: 300.000000
khushal@khushal-Veriton-Series:~/Desktop/assignment$ ./a.out
Fri Sep  7 17:13:23 2018

To perform :
1.[a*b]
2.[a/b]
Enter the Choice:2

Enter the Divisor (a):78

Enter the Divident (b):39

Quotient : 2.000000 & Remainder : 0.000000
khushal@khushal-Veriton-Series:~/Desktop/assignment$ █

```

**<\*> To perform operations with the digits of the number.**

**>>> Syntax :**

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

```
#include<time.h>
```

```
int main(void)
```

```
{
    long long int num;
    timestamp();
    printf("\nEnter the number : ");
    scanf("%lld",&num);
    printf("\nNumber in discrete form :\n");
    int disc=num,count=1,ams=0;
    while(disc>=10)
    {
        int a;
        a = disc%10;
        printf("%d\n",a);
        ams+=a*a*a;           //checking Armstrong
        count++;              //Count of digits
        disc/=10;
    }printf("%d\n",disc);
    ams+=disc*disc*disc;
    printf("\nTotal number of Digits : %d",count);
    int prod=multiply(num);
    int sum=add(num);
    printf("\nSum of Digits : %d",sum);
    printf("\nProduct of Digits : %d\n",prod);
    if(ams==num)
        printf("This is an Armstrong Number!\n\n");
    else
        printf("This is not an Armstrong Number!\n\n");
    return 0;
}
```

```
int add(no)           //Addition of digits
```

```
{
    long long int sum,disc=no;
    sum=0;
    while(disc>=10)
    {
        int rem=disc%10;
        sum+=rem;
        disc/=10;
    }sum+=disc;
    return sum;
}
```

```
int multiply(no)       //Product of digits
```

```
{
    long long int prod,disc=no;
    prod=1;
    while(disc>10)
    {
        int rem=disc%10;
        prod*=rem;
    }
}
```

```

        disc/=10;
    }prod*=disc;
    return prod;
}

void timestamp()
{
    time_t clk = time(NULL);
    printf("\n%s\n", ctime(&clk));
}

```

>>> **Output :**

```

khushal@khushal-Veriton-Series:~/Desktop/assignment$ ./a.out

Fri Sep  7 17:18:08 2018

Enter the number : 813018

Number in discrete form :
8
1
0
3
1
8

Total number of Digits : 6
Sum of Digits : 21
Product of Digits : 0
This is not an Armstrong Number!

khushal@khushal-Veriton-Series:~/Desktop/assignment$ ./a.out

Fri Sep  7 17:18:32 2018

Enter the number : 153

Number in discrete form :
3
5
1

Total number of Digits : 3
Sum of Digits : 9
Product of Digits : 15
This is an Armstrong Number!

khushal@khushal-Veriton-Series:~/Desktop/assignment$ █

```