Assignment: Task_Operators.

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1.Bitwise and Ternary operators

Operators help in performing mathematical and logical computations over the given operands. There are different types of them. Bitwise operators are one among them. These operators are used to perform bit operations. Decimal values are converted into binary values which are the sequence of bits and bit wise operators work on them. Syntax's of Bitwise operators are as follows.

1. Bitwise AND- &
2. Bitwise OR- l
3. Bitwise NOT(exclusive OR operator)- ~
4. Bitwise (Binary One's complement operator is unary operator)- ^
5. Bitwise RIGHT SHIFTER- >>
6. Bitwise LEFT SHIFTER- <<

Another operator is Ternary operator. It is the short form of the if else conditions. The ternary operator starts with a condition. If this condition evaluates to true then it will execute the first statement after ? , otherwise the second statement after : , will be executed. The syntax is as follows.

- condition ? statement 1 : statement 2

2. Writing a calculator program by taking input from the user.

(i) Addition: *Input is as follows*

```
#include<stdio.h>

int main()

{

   int a,b;

   puts("Enter a:");

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

```
    puts("Enter b:");
    scanf("%d",&b);
    printf("sum of number a,b is:%d",a+b);
    return 0;
}
```

Output is as follows: The user will be asked to enter two numbers.

Enter a: 4

Enter b: 5

Sum of 4,5 is 9.

(ii) <u>Subtraction</u>: *Input is as follows*

```
#include<stdio.h>
int main()
{
   int a,b;
   puts("Enter a:");
   scanf("%d",&a);
   puts("Enter b:");
   scanf("%d",&b);
   printf("subtraction of number a,b is:%d",a-b);
   return 0;
}
```

Output is as follows: The user will be asked to enter two numbers.

Enter a: 4

Enter b: 5

Subtraction of 4,5 is -1.

(iii) Multiplication: *Input is as follows*

```
#include<stdio.h>
int main()
{
   int a,b;
   puts("Enter a:");
   scanf("%d",&a);
   puts("Enter b:");
   scanf("%d",&b);
   printf("multiplication of number a,b is:%d",a*b);
   return 0;
}
```

Output is as follows: The user will be asked to enter two numbers.

```
Enter a: 4
Enter b: 5
Subtraction of 4,5 is 20.
```

(iv) Division: *Input is as follows*

```
#include<stdio.h>
int main()
{
   int a,b;
   puts("Enter a:");
   scanf("%d",&a);
```

```
    puts("Enter b:");
    scanf("%d",&b);
    printf("Division of number a,b is:%d",b/a);
    return 0;
}
```

Output is as follows: The user will be asked to enter two numbers.

Enter a: 3

Enter b: 6

Division of 3,6 is 2.

(v) <u>Percentage:</u> *Input is as follows*

```
#include<stdio.h>
int main()
{
   int a,b;
   puts("Enter a:");
   scanf("%d",&a);
   puts("Enter b:");
   scanf("%d",&b);
   printf(Percentage of number a,b is:%d",(a*b)/100);
   return 0;
}
```

Output is as follows: The user will be asked to enter two numbers.

Enter a: 20

Enter b: 50

Percentage of 20,50 is 10.