Name: Sai Likhitha Gunda
Assignment on bit wise not operator and big integer data type

Bit wise not Operator/Bit wise Compliment Operator(~):

Bitwise operator performs the operations at bit level of the operand and it Converts 0's to 1's and vice-versa in order to find bitwise complement.
Bit wise operator is a unary operator,it contains only single operand.

Ex: 11 (Binary:00001011)

```
                    0 0 0 0 1 0 1 1
1's complement      1 1 1 1 0 1 0 0  (~11)
```

In order to find the value of ~11 we need to find 2's complement of acquired value.

```
                    1 1 1 1 0 1 0 0  (-12) we finally found the value for ~11 i.e -12
1'scomplement       0 0 0 0 1 0 1 1
2's complement                   1
-------------------------------------------------
                    0 0 0 0 1 1 0 0  (+12)
```

In simpler words we can say that ~n = -(n+1)

~11 = -(11+1) = -12
~98 = -(98+1) = -99 and so on.
~(-11) = -(-11+1) = -10

BitwiseOp.java

File Edit View

```
class BitwiseOp
{
        public static void main(String[] args)
        {
                int a=5;
                int b=90;
                System.out.println("compliment/negation of 5 is:"+(~a));
                System.out.println("compliment/negation of 90 is:"+(~b));
        }
```

C:\WINDOWS\system32\cmd.

```
C:\Users\saili\OneDrive\Desktop\kodnest\programs\Assignments on july 14,17>javac BitwiseOp.java

C:\Users\saili\OneDrive\Desktop\kodnest\programs\Assignments on july 14,17>java BitwiseOp
compliment/negation of 5 is:-6
compliment/negation of 90 is:-91

C:\Users\saili\OneDrive\Desktop\kodnest\programs\Assignments on july 14,17>
```

Big integer:

Big integer is a class in java unlike the primitive integer data types (byte,short,int,long) it does not have range limit.

Big integer dynamically allocates the memory according to the requirement.It performs operations as long as memory is available.