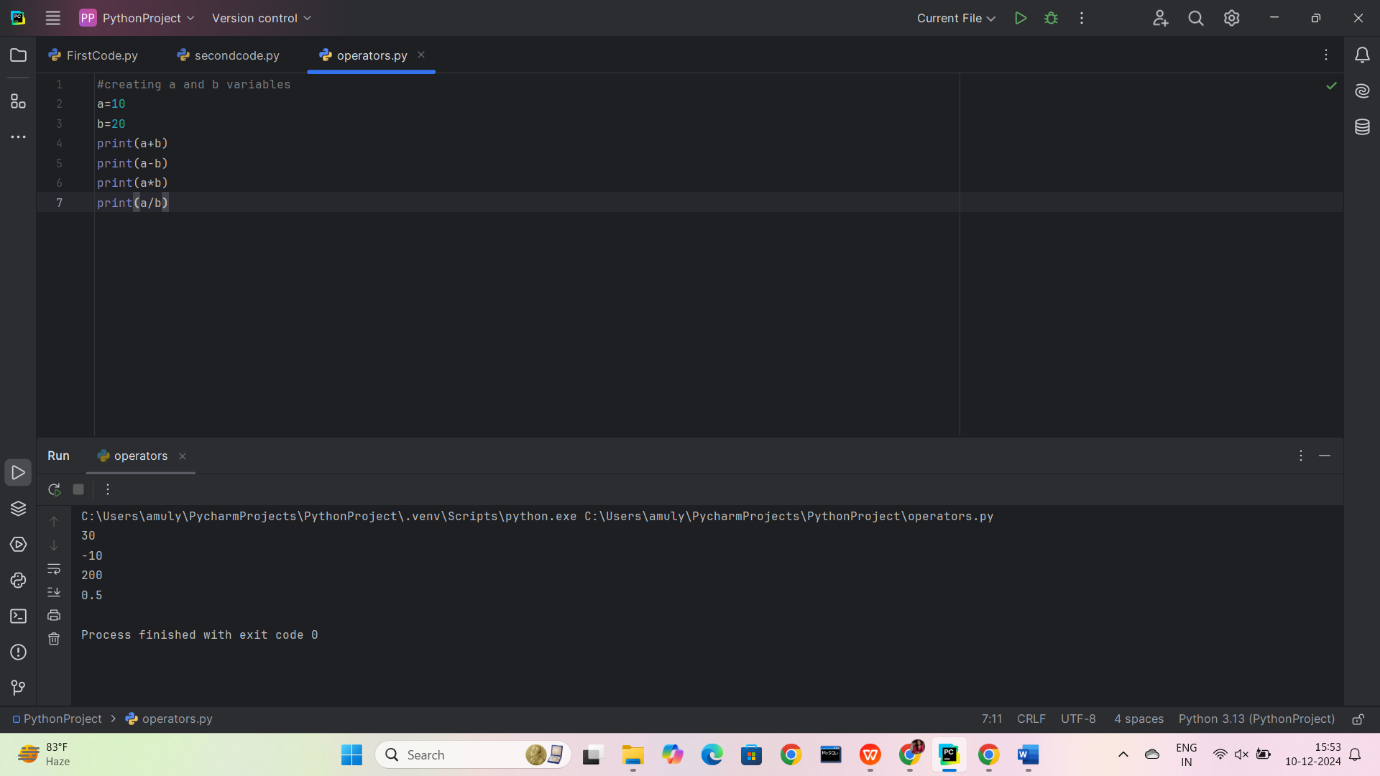
Arithmetic Operators

These operators are used for performing mathematical operations.

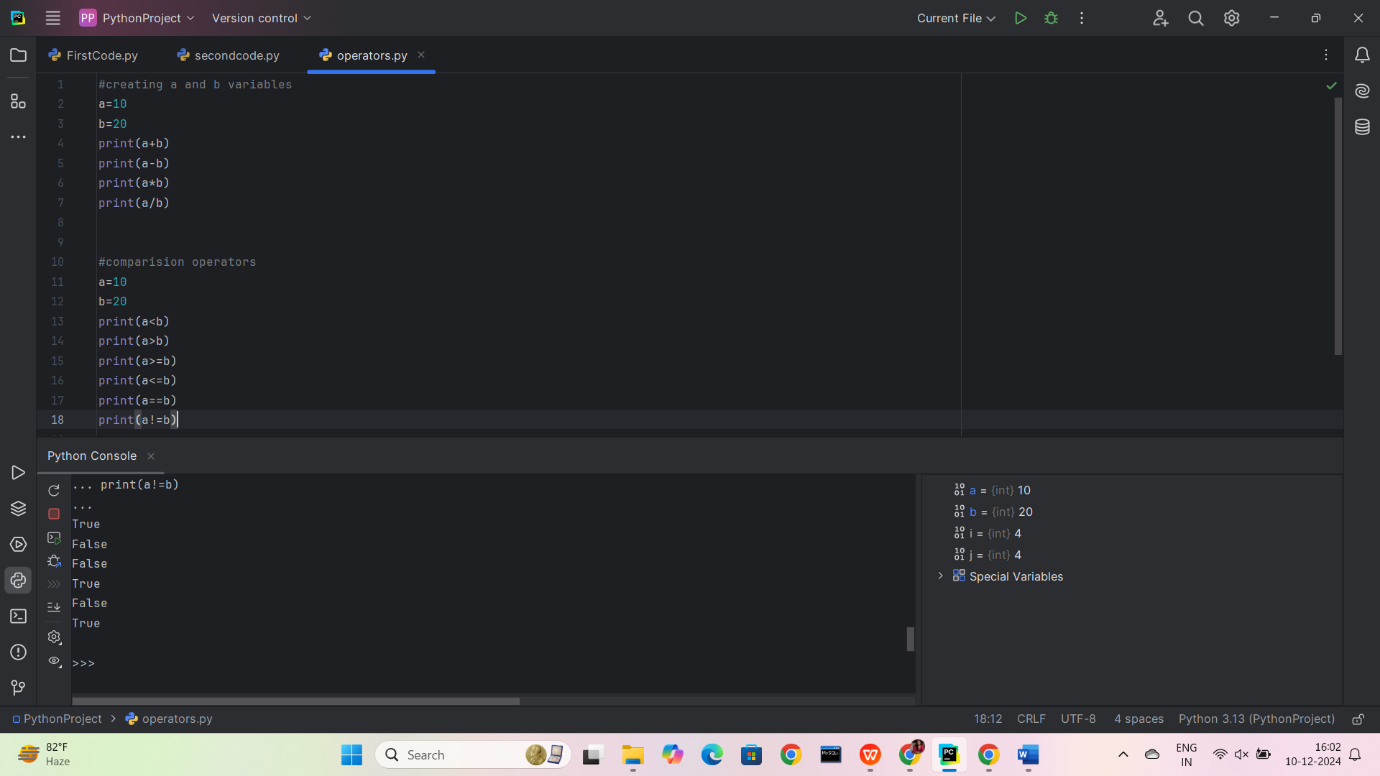
#creating a and b variables  
a=10  
b=20  
print(a+b)  
print(a-b)  
print(a\*b)  
print(a/b)



Comparison Operators

These operators compare two values and return True or False.

a=10  
b=20  
print(a<b) o/p is true  
print(a>b) o/p is false  
print(a>=b) o/p is false  
print(a<=b) o/p is true  
print(a==b) o/p is False  
print(a!=b) o/p is true



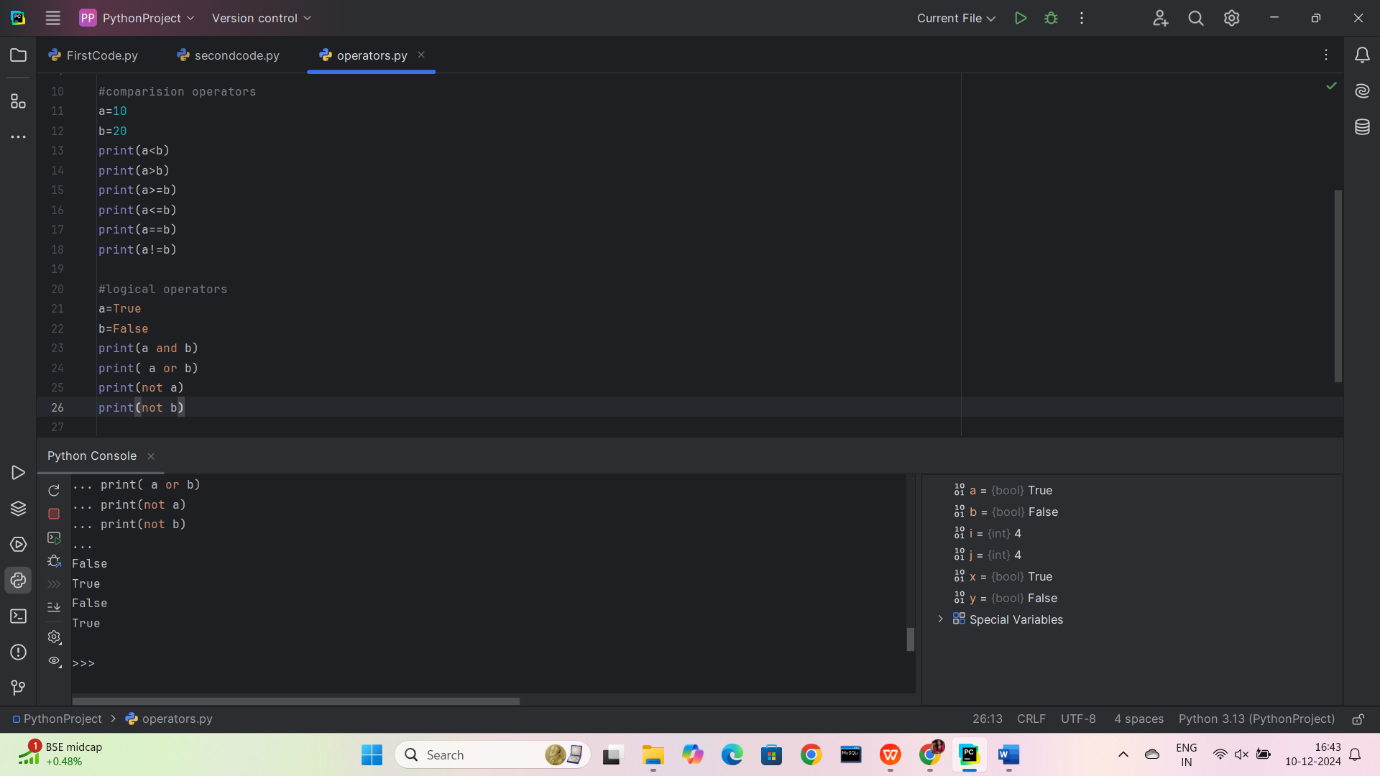
Logical Operators

1. Create two boolean variables, x and y.

2. Use logical operators (and, or, not) to perform various logical operations on x and y.

3. Print the results.

a=True  
b=False  
print(a and b)  
print( a or b)  
print(not a)  
print(not b)



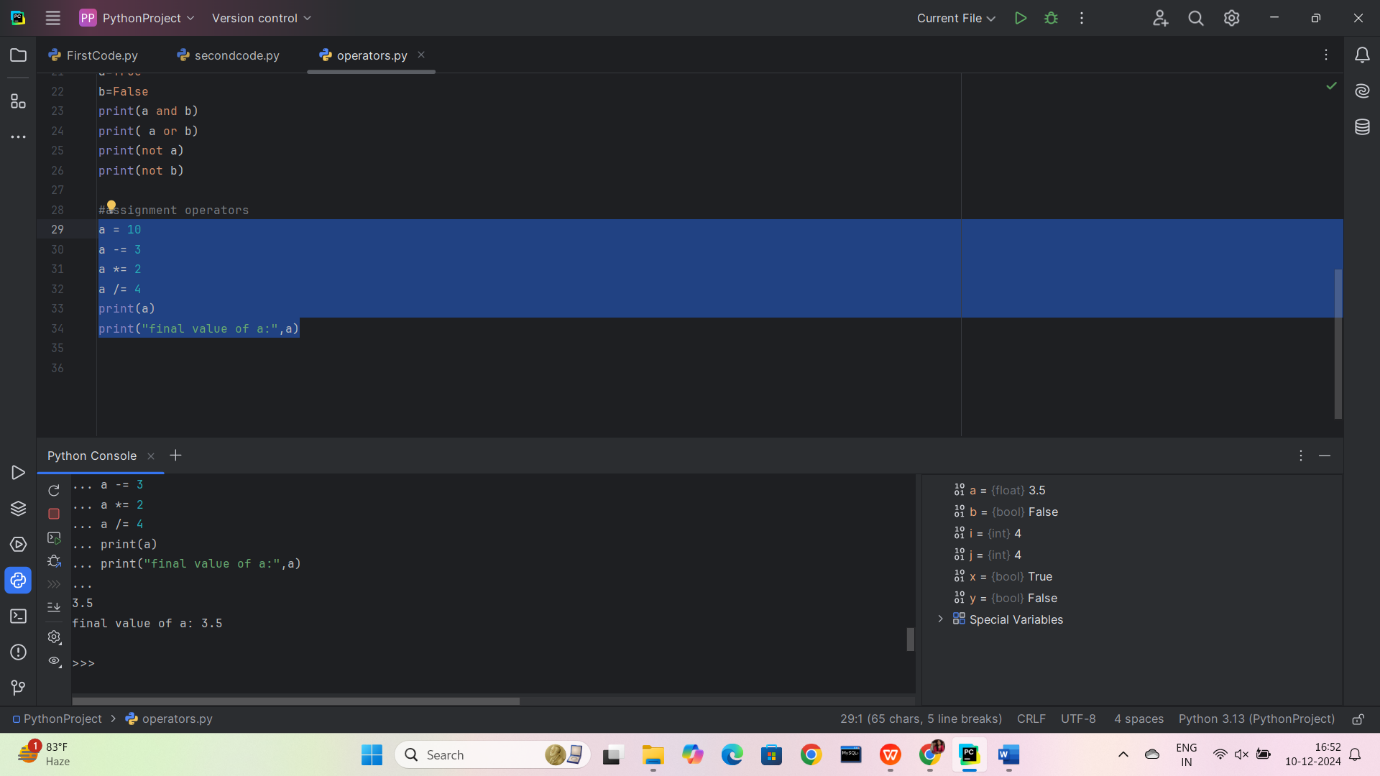
Task 4: Assignment Operators

1. Create a variable total and initialize it to 10.

2. Use assignment operators (+=, -=, \*=, /=) to update the value of total.

3. Print the final value of total.

a = 10  
a -= 3  
a \*= 2  
a /= 4  
print(“final value of a:”,a)

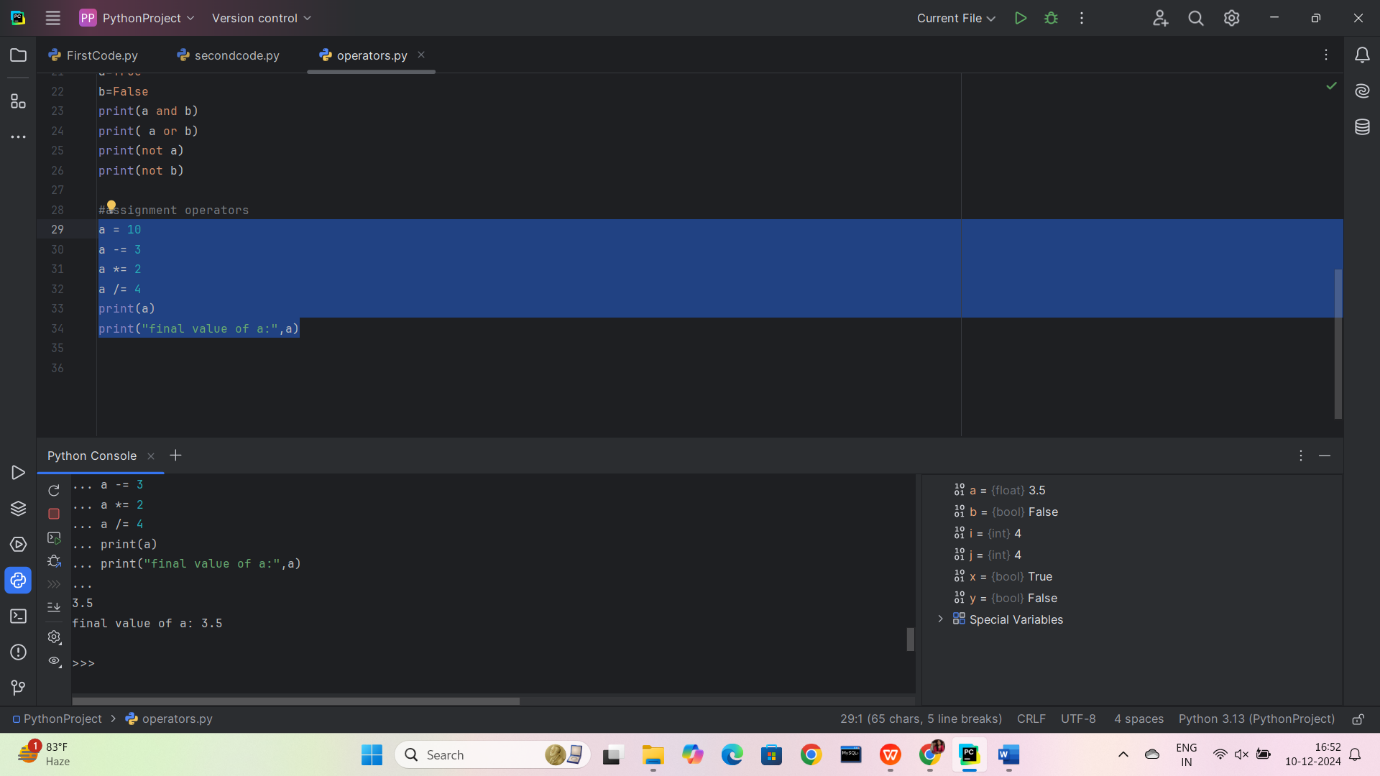


Task 5: Bitwise Operators (Optional)

1. If you are comfortable with bitwise operators, perform some bitwise operations on integer

values and print the results. If not, you can skip this task.

a = 8  
b = 5  
and\_result = a & b  
or\_result = a | b  
not\_result = ~a  
xor\_result = a ^ b  
leftshift\_result = a << b  
rightshift\_result = a >> b  
print(and\_result, or\_result, not\_result, xor\_result, leftshift\_result, rightshift\_result)



Task 6: Identity and Membership Operators

1. Create a list my\_list containing a few elements.

2. Use identity operators (is and is not) to check if two variables are the same object.

3. Use membership operators (in and not in) to check if an element is present in my\_list.

4. Print the results.

#create a list  
my\_list = [1,2,3,'ammu','hema']  
a=(1,2,3,'ammu','hema')  
b=[1,2,3,'ammu','hema']  
identity\_check\_is = (a is my\_list)   
identity\_check\_is\_not = (b is not my\_list)   
  
# Membership operators: 'in' and 'not in'  
check\_in = 2 in my\_list   
check\_not\_in = "ammu" in my\_list   
check\_not\_in = "balu" in my\_list

And output is

identity\_check\_is: False

identity\_check\_is\_not: True

check\_in (2 in my\_list): True

check\_not\_in\_ammu ('ammu' in my\_list): True

check\_not\_in\_balu ('balu' in my\_list): False

