Project 15

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```
#taking a string and converting into digit to find prime and composite number between the range A and B
    A=input('Enter the value of A:')
    B=input('Enter the value of B:')
    def prime_and_composite(A,B):# using def function to call a function
        c=0
        p=0

        if (A.isdigit() and B.isdigit()) or (A.lstrip('+').isdigit() and B.isdigit()) or (B.lstrip('+').isdigit() and A.isdigit() )or (A.lstrip('+').isdigit() and B.lstrip('+').isdigit()) or (B.lstrip('+').isdigit() and A.lstrip('+').isdigit() ) :
        #The isdigit() method returns True if all the characters are digits, otherwise False.
        #The lstrip() method returns a copy of the string with specified characters removed
            a=int(A)
```

```
        b=int(B)
        if a<b:
            for a in range(a,b+1):
            #we are using b+1 beacause range function didn't include till b
                x=1
                count=0
                while(x<=a):
                    if a%x==0:
                        count=count+1# we used this because we want to include zero also in range
                    x=x+1
                if count==2:
                    p=p+1
                    print("{} is prime number".format(a))
                elif count>2:
                    c=c+1
                    print("{} is composite number".format(a))
```

```
            else:
                print()
        print("{} prime and {} composite number in range.".format(p,c))# The format() method formats the specified value(s) and insert them inside the string's placeholder. The placeholder is defined using curly brackets: {}.


    else:
        d=0
        d=a
        a=b
        b=d
        for a in range(a,b+1):
            x=1
            count=0
            while(x<=a):
                if a%x==0:
                    count=count+1
                x=x+1
```

```
            if count==2:
                p=p+1
                print("{} is prime
number".format(a))
            elif count>2:
                c=c+1
                print("{} is composite
number".format(a))
            else:
                print()


        print("{} prime and {} composite number
in range.".format(p,c))
    elif (A.lstrip('-').isdigit() and B.isdigit()) or
(B.lstrip('-').isdigit() and A.isdigit()) or
(A.lstrip('+').isdigit() and B.isdigit()) or
(B.lstrip('+').isdigit() and A.isdigit() ) :
        a=int(A)
        b=int(B)
        if a<b:
            for a in range(a,b+1):
```

```
            x=1
            count=0
            while(x<=a):
                if a%x==0:
                    count=count+1
                x=x+1
            if count==2:
                p=p+1
                print("{} is prime
number".format(a))
            elif count>2:
                c=c+1
                print("{} is composite
number".format(a))
            else:
                print()
        print("{} prime and {} composite number
in range.".format(p,c))
    else:#for conditions like a>b
```

```
        print("A>B so we will swap A and B to
find composite and prime in give range")
        d=0
        d=a
        a=b
        b=d
        for a in range(a,b+1):
            x=1
            count=0
            while(x<=a):
                if a%x==0:
                    count=count+1
                x=x+1
            if count==2:
                p=p+1
                print("{} is prime
number".format(a))
            elif count>2:
                c=c+1
```

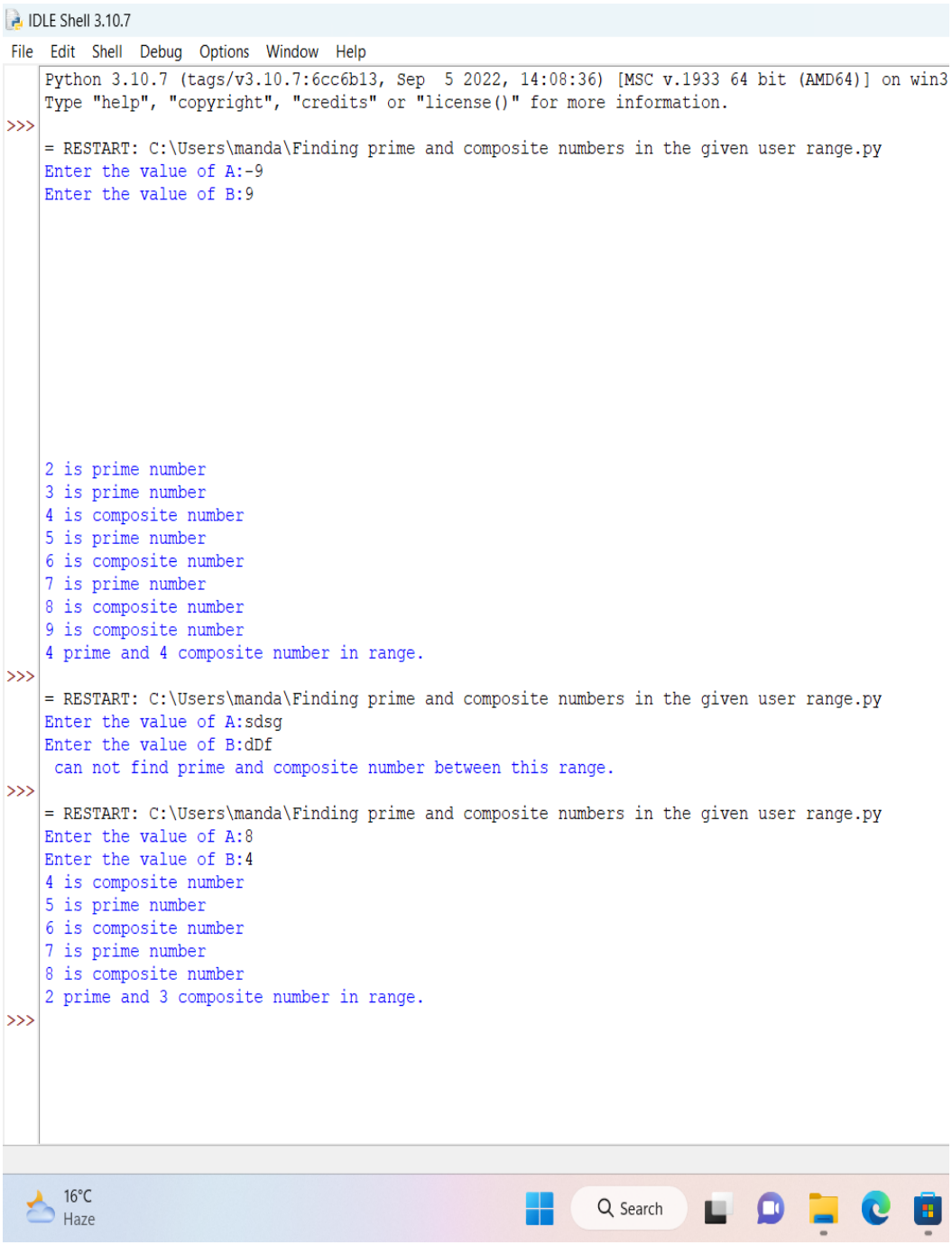
```
                print("{} is composite
number".format(a))
            else:
                print()

        print("{} prime and {} composite number
in range.".format(p,c))

    elif  type(A)==str or type(B)==str or
A.isdecimal() or B.isdecimal():#.isdecimal
function is used to check string is in decimal or
not

        print(" can not find prime and composite
number between this range.")

    else:
        print(" can not find prime and composite
number between this range.")
prime_and_composite(A,B)
```


IDLE Shell 3.10.7
File Edit Shell Debug Options Window Help
Python 3.10.7 (tags/v3.10.7:6cc6b13, Sep 5 2022, 14:08:36) [MSC v.1933 64 bit (AMD64)] on win3
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\Users\manda\Finding prime and composite numbers in the given user range.py
Enter the value of A:-9
Enter the value of B:9
2 is prime number
3 is prime number
4 is composite number
5 is prime number
6 is composite number
7 is prime number
8 is composite number
9 is composite number
4 prime and 4 composite number in range.
>>>
= RESTART: C:\Users\manda\Finding prime and composite numbers in the given user range.py
Enter the value of A:sdsg
Enter the value of B:dDf
can not find prime and composite number between this range.
>>>
= RESTART: C:\Users\manda\Finding prime and composite numbers in the given user range.py
Enter the value of A:8
Enter the value of B:4
4 is composite number
5 is prime number
6 is composite number
7 is prime number
8 is composite number
2 prime and 3 composite number in range.
>>>
16°C
Haze
Search