AMC ENGINEERING COLLEGE

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Assignment 1

PYTHON

Submitted By:

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CSE 'D' Section

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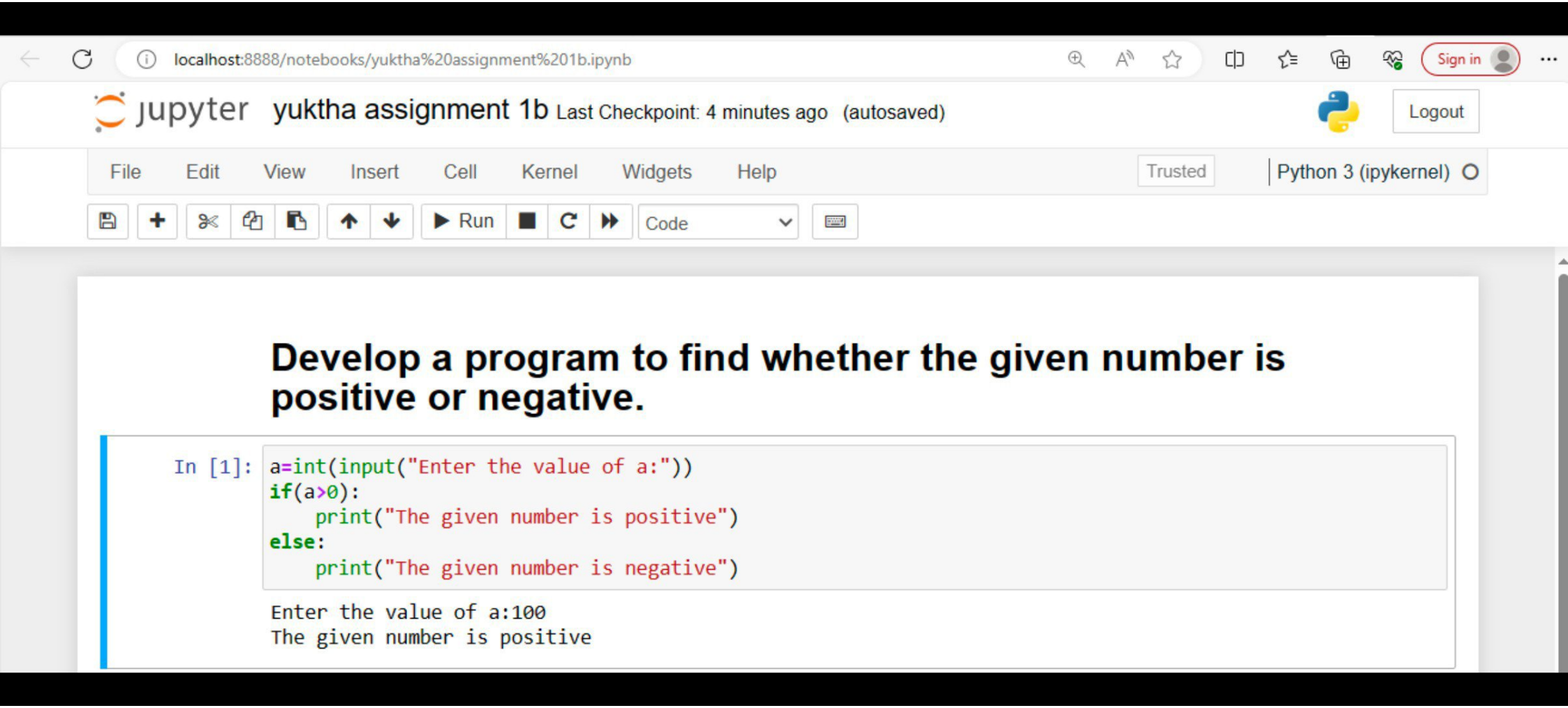
Python 3 (ipykernel)

Run Markdown

The given number is even or odd

In [1]:
```
num=int(input("Enter a number:"))
a=10
if(a%2)==0:
    print("a is even")
else:
    print("a is odd")
```

```
Enter a number:10
a is even
```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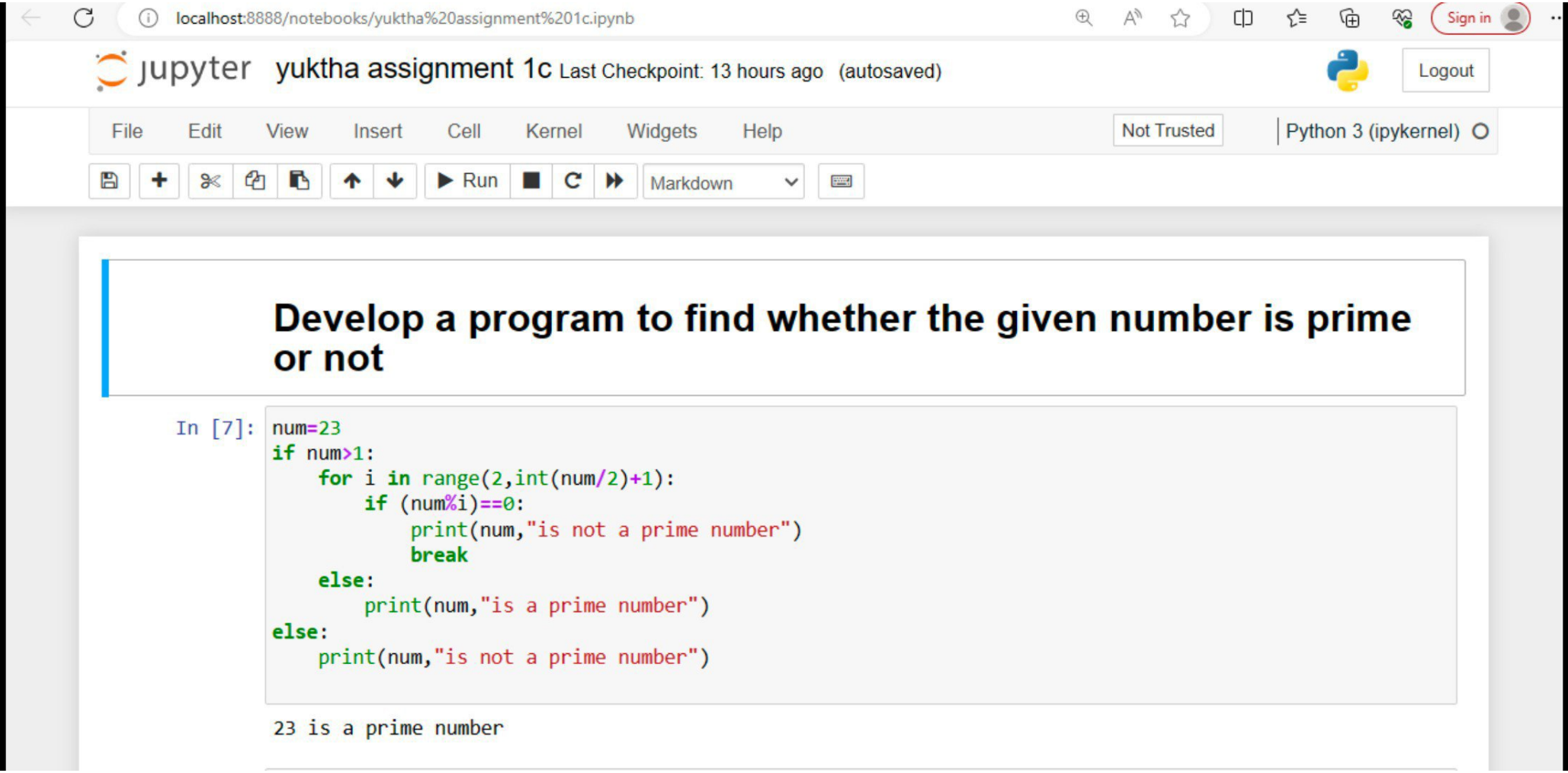
Python 3 (ipykernel)
Run
Code
Develop a program to find whether the given number is positive or negative.
In [1]:
a=int(input("Enter the value of a:"))
if(a>0):
print("The given number is positive")
else:
print("The given number is negative")
Enter the value of a:100
The given number is positive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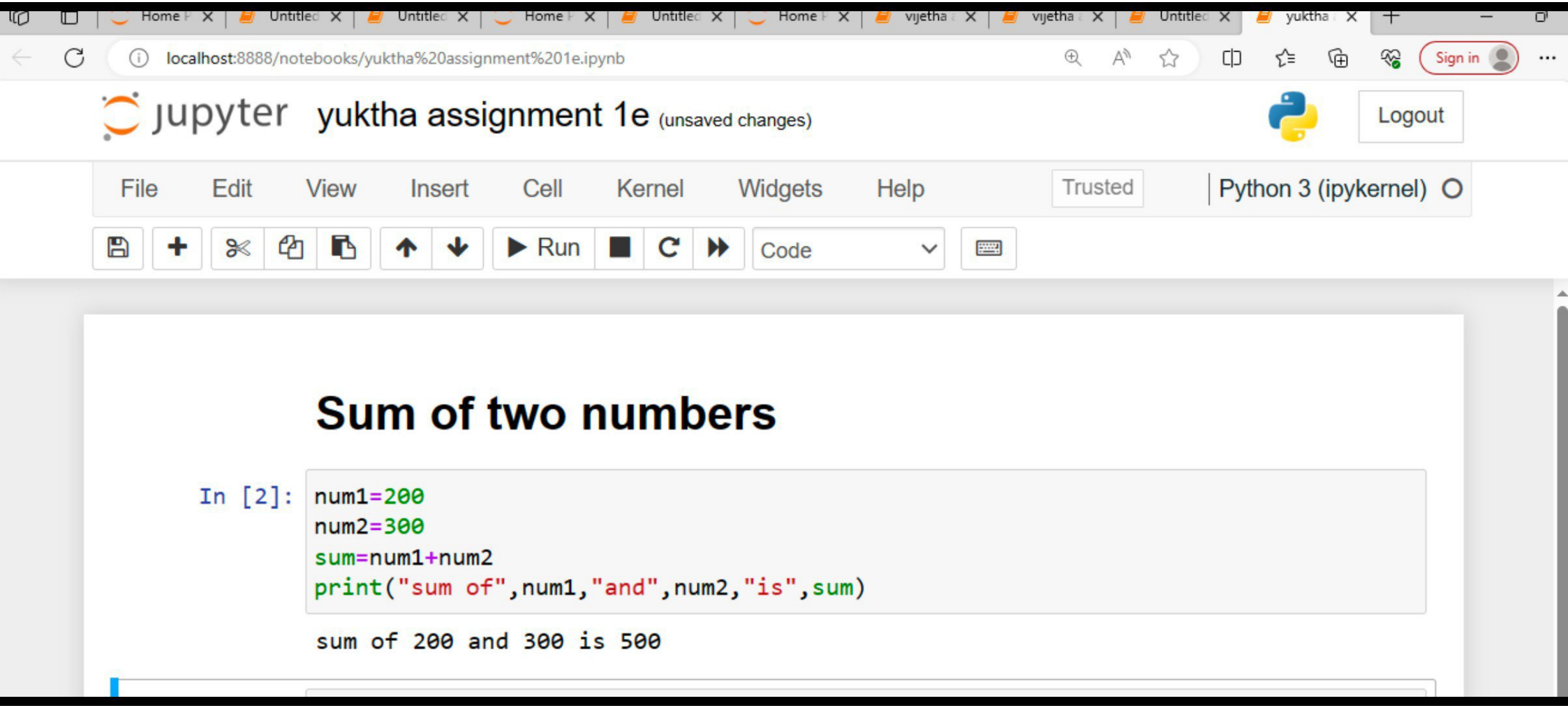
Python 3 (ipykernel)
Run
Markdown
Develop a program to find whether the given number is prime or not
In [7]:
num=23
if num>1:
for i in range(2,int(num/2)+1):
if (num%i)==0:
print(num,"is not a prime number")
break
else:
print(num,"is a prime number")
else:
print(num,"is not a prime number")
23 is a prime number

Develop a program to whether it is pallindrome.

In [1]:
```
def is_palindrome(n):
    return str(n)==(reversed(str(n)))
n=int(input("Enter the number:"))
if is_palindrome(n):
    print("The number is a palindrome!")
else:
    print("The number is not a palindrome.")
```

```
Enter the number:10
The number is not a palindrome.
```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Trusted
Python 3 (ipykernel)
Run
Code
Sum of two numbers
In [2]:
num1=200
num2=300
sum=num1+num2
print("sum of",num1,"and",num2,"is",sum)
sum of 200 and 300 is 500

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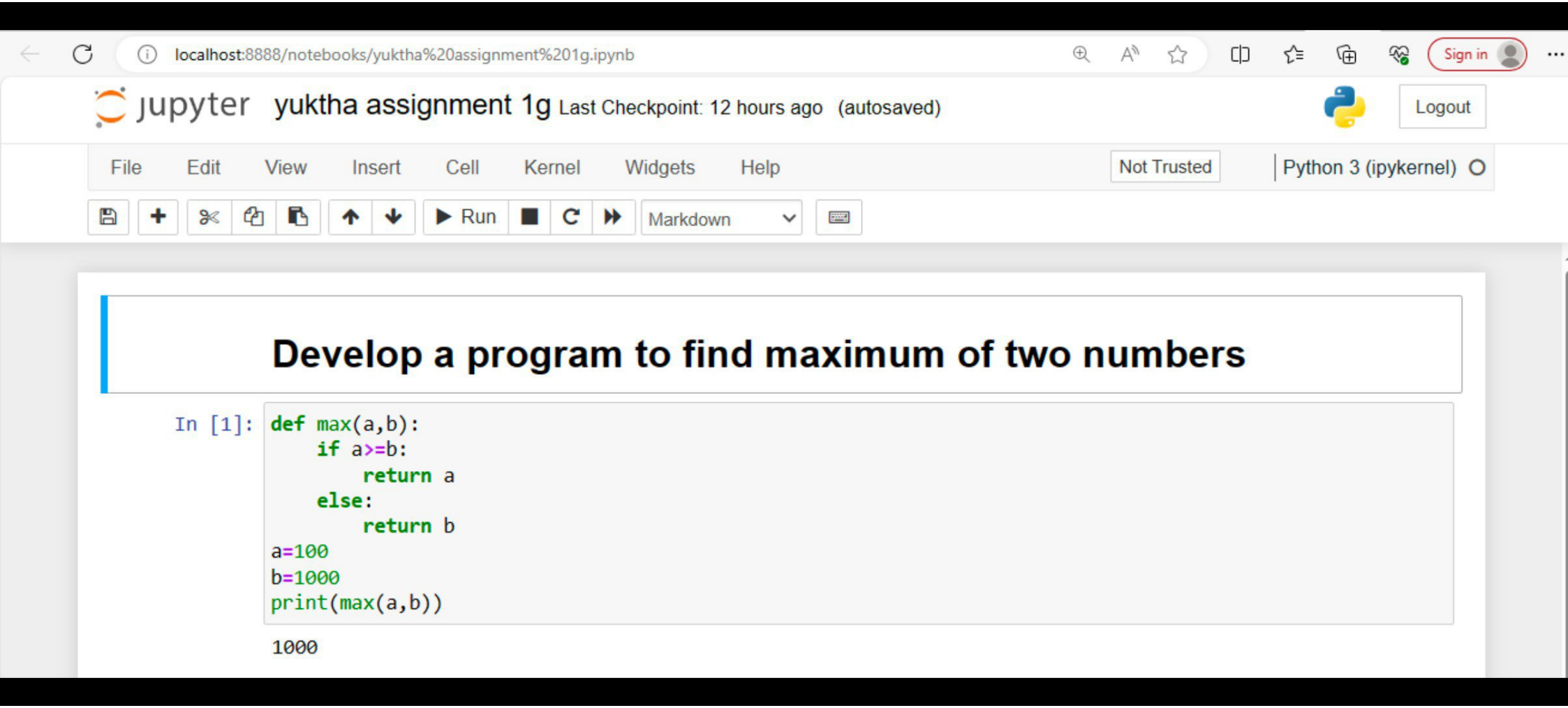
Develop a program to find sum of two numbers using functions

In [1]:
```
def sum(x,y):
    return x+y
a=int(input("Enter the num1:"))
b=int(input("Enter the num2:"))
c=sum(a,b)
print("sum of",a,"and",b,"is",c)
```

```
Enter the num1:20
Enter the num2:30
sum of 20 and 30 is 50
```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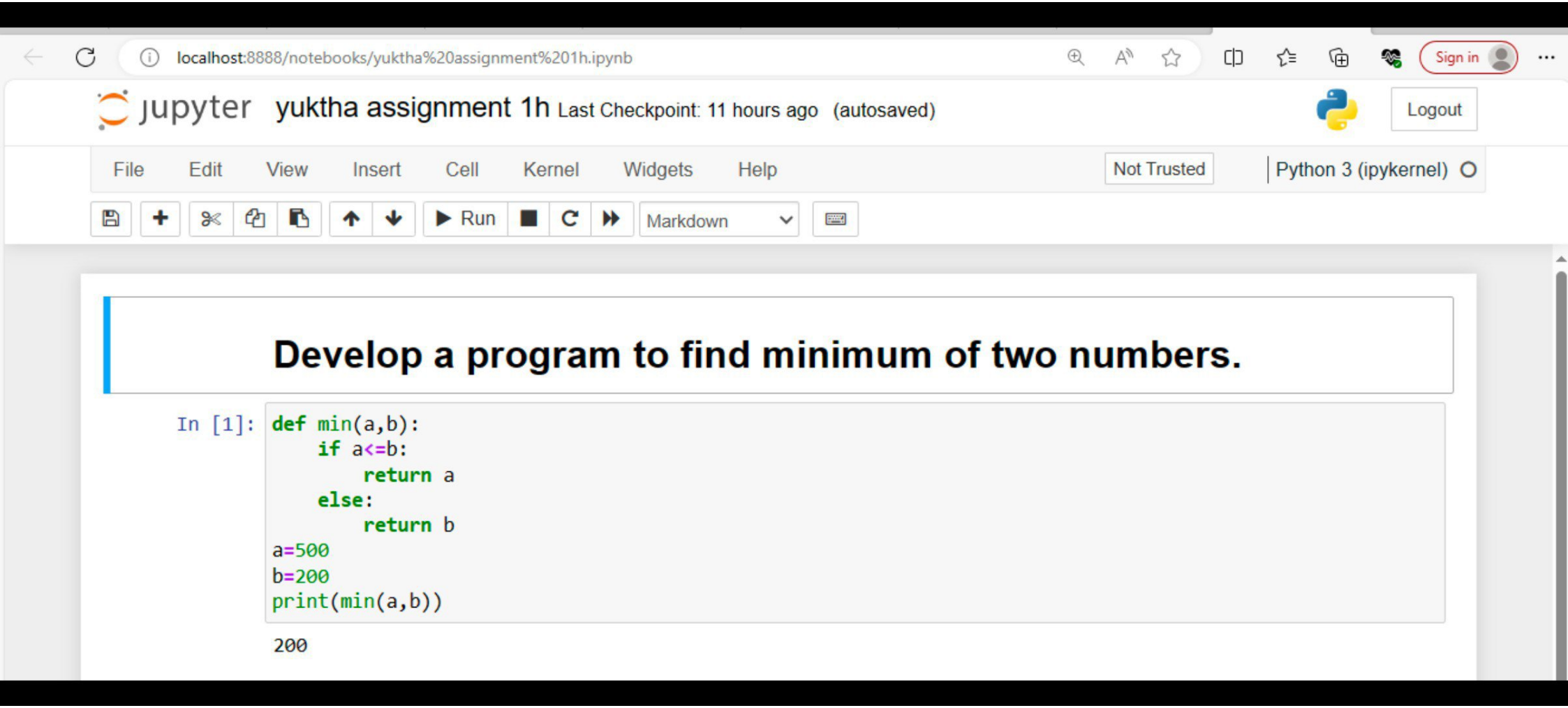
Python 3 (ipykernel)
Run
Markdown
Develop a program to find maximum of two numbers
In [1]:
def max(a,b):
if a>=b:
return a
else:
return b
a=100
b=1000
print(max(a,b))
1000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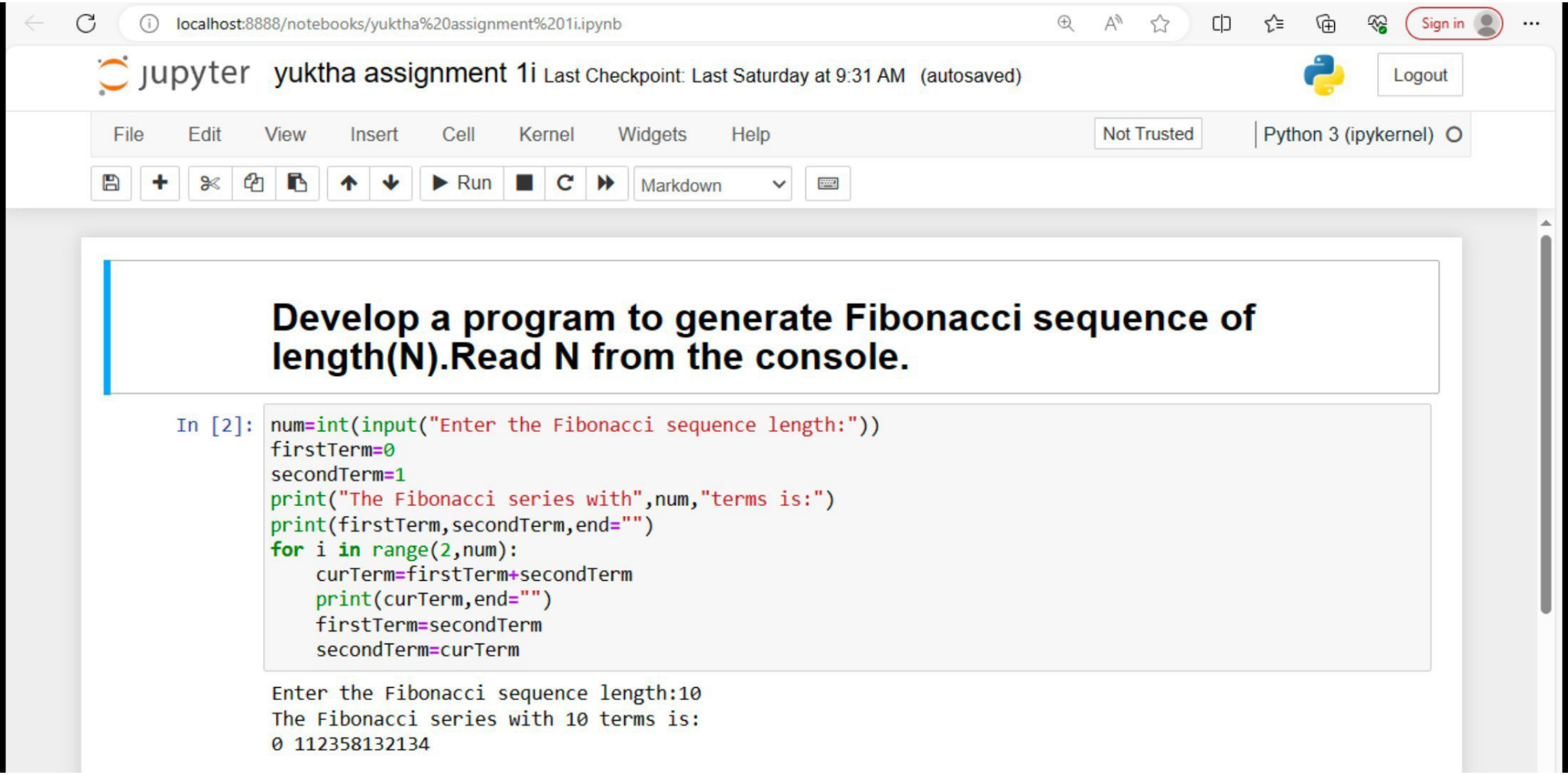
Python 3 (ipykernel)
Run
Markdown
Develop a program to find minimum of two numbers.
In [1]:
def min(a,b):
if a<=b:
return a
else:
return b
a=500
b=200
print(min(a,b))
200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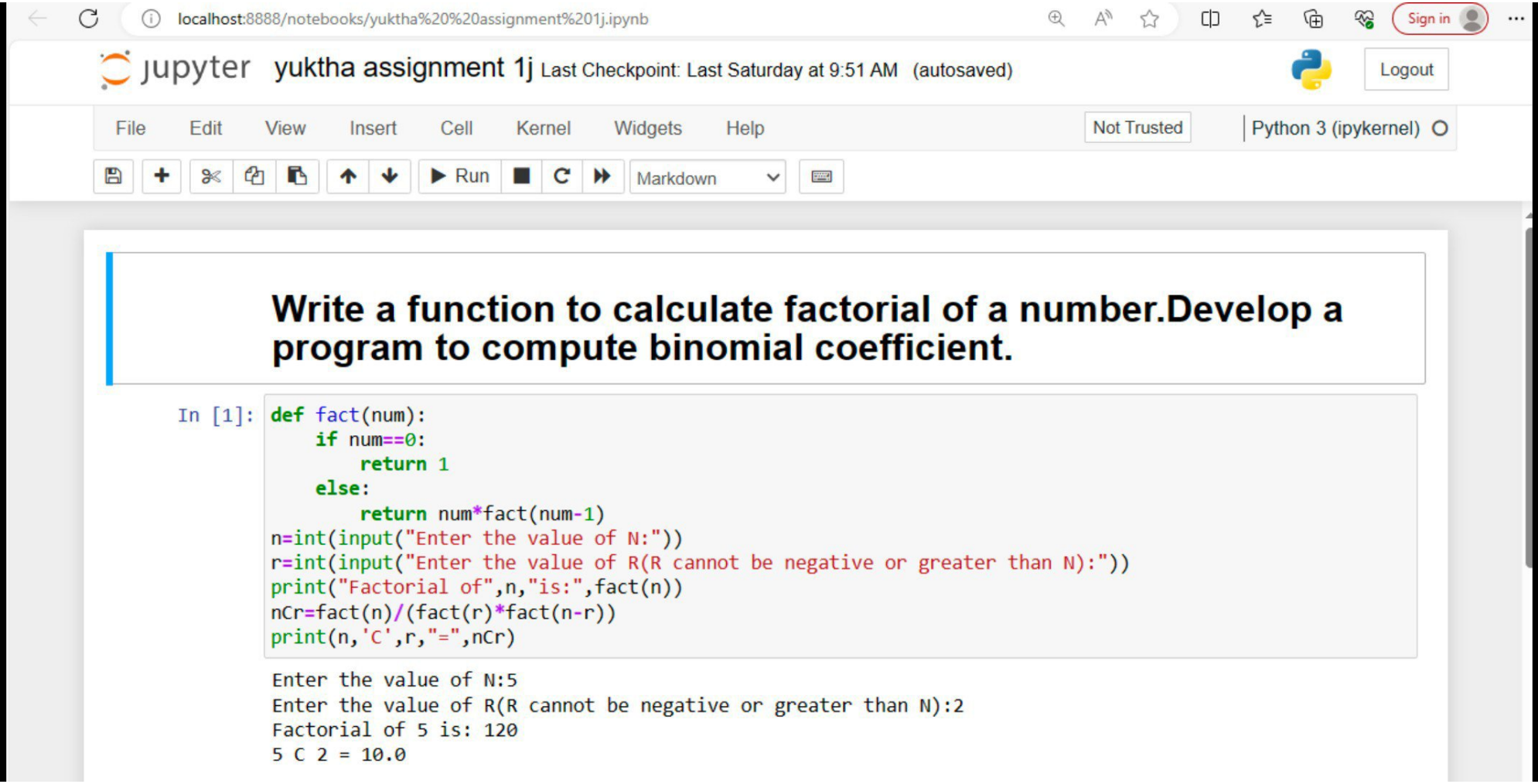
Python 3 (ipykernel)
Run
Markdown
Develop a program to generate Fibonacci sequence of length(N).Read N from the console.
In [2]:
num=int(input("Enter the Fibonacci sequence length:"))
firstTerm=0
secondTerm=1
print("The Fibonacci series with",num,"terms is:")
print(firstTerm,secondTerm,end="")
for i in range(2,num):
curTerm=firstTerm+secondTerm
print(curTerm,end="")
firstTerm=secondTerm
secondTerm=curTerm
Enter the Fibonacci sequence length:10
The Fibonacci series with 10 terms is:
0 112358132134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Python 3 (ipykernel)
Run
Markdown
Write a function to calculate factorial of a number.Develop a program to compute binomial coefficient.
In [1]:
def fact(num):
if num==0:
return 1
else:
return num*fact(num-1)
n=int(input("Enter the value of N:"))
r=int(input("Enter the value of R(R cannot be negative or greater than N):"))
print("Factorial of",n,"is:",fact(n))
nCr=fact(n)/(fact(r)*fact(n-r))
print(n,'C',r,"=",nCr)
Enter the value of N:5
Enter the value of R(R cannot be negative or greater than N):2
Factorial of 5 is: 120
5 C 2 = 10.0


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Python 3 (ipykernel)
Run
Markdown
Develop a program to find GCD of two numbers.
In [7]:
def gcd(a,b):
if(a==0):
return b
if(b==0):
return a
if(a==b):
return a
if(a>b):
return gcd(a-b,b)
return gcd(a,b-a)
a=98
b=56
if(gcd(a,b)):
print('GCD of',a,'and',b,'is',gcd(a,b))
else:
print('not found')
GCD of 98 and 56 is 14

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Python 3 (ipykernel)

Run Markdown

Develop a program to swap two numbers

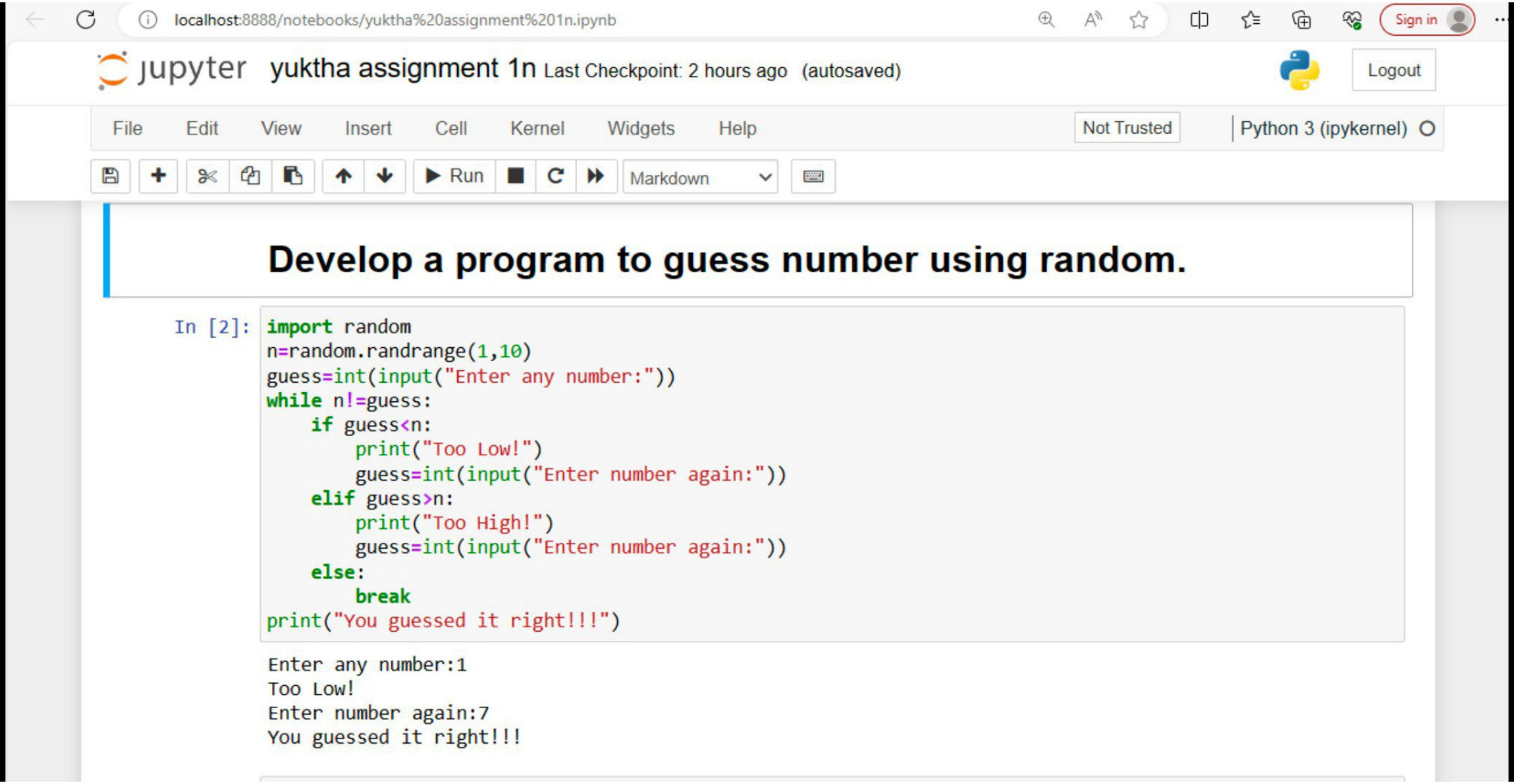
In [1]:
```
x=5
y=10
print("Before swapping:")
print("value of x:",x,"and y:",y)
x,y=y,x
print("After swapping:")
print("value of x:",x,"and y:",y)
```

```
Before swapping:
value of x: 5 and y: 10
After swapping:
value of x: 10 and y: 5
```

Develop a program to reverse number is string.

In [1]:
```
num=123456789
reversed_num=0
while num !=0:
    digit=num%10
    reversed_num=reversed_num*10+digit
    num//=10
print("Reversed Number:"+str(reversed_num))
```

```
Reversed Number:987654321
```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Python 3 (ipykernel)
Run
Markdown
Develop a program to guess number using random.
In [2]:
import random
n=random.randrange(1,10)
guess=int(input("Enter any number:"))
while n!=guess:
if guess<n:
print("Too Low!")
guess=int(input("Enter number again:"))
elif guess>n:
print("Too High!")
guess=int(input("Enter number again:"))
else:
break
print("You guessed it right!!!")
Enter any number:1
Too Low!
Enter number again:7
You guessed it right!!!