

day 2 task nishu.ipynb ☆

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```
num = int(input("Enter a number: "))
if num % 2 == 0:
    print(f"{num} is an even number.")
else:
    print(f"{num} is an odd number.")
```

Enter a number: 5
5 is an odd number.

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```
marks = int(input("Enter your marks: "))

if marks >= 90:
    grade = "A+"
elif marks >= 80:
    grade = "A"
elif marks >= 70:
    grade = "B"
elif marks >= 60:
    grade = "C"
elif marks >= 50:
    grade = "D"
else:
    grade = "F"

print(f"Your grade is: {grade}")
```

Enter your marks: 95
Your grade is: A+

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```
num = float(input("Enter a number: "))

if num > 0:
    print("The number is positive.")
elif num < 0:
    print("The number is negative.")
else:
    print("The number is zero.")
```

Enter a number: 5
The number is positive.

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```
a = float(input("Enter first number: "))
b = float(input("Enter second number: "))
c = float(input("Enter third number: "))

if a >= b and a >= c:
    max_num = a
elif b >= a and b >= c:
    max_num = b
else:
    max_num = c

print(f"The maximum number is: {max_num}")
```

Enter first number: 5
Enter second number: 6
Enter third number: 5
The maximum number is: 6.0

Release notes

Please follow our [blog](#) to see more information about new features, tips and tricks, and featured notebooks such as [Analyzing a Bank Failure with Colab](#).

2025-01-13

- Released version 1.2.0 of the [\(Open in Colab Chrome Extension\)](#).
- Released minimizable comments with indicators next to cell.
- TPU v5e-1 Runtimes are now available for selection [\(tweet\)](#).
- GPU prices were decreased [\(tweet\)](#).

Python package upgrades

- accelerate 1.1.1 -> 1.2.1
- aiohttp 3.10.10 -> 3.11.11
- altair 4.2.2 -> 5.5.0
- bigframes 1.25.0 -> 1.29.0
- cmake 3.30.5 -> 3.31.2
- cvxpy 1.5.3 -> 3.6.0
- earthengine-api 1.2.0 -> 1.4.3
- folium 0.18.0 -> 0.19.3
- holidays 0.60 -> 0.63
- huggingface-hub 0.26.2 -> 0.27.0
- jsonpickle 3.4.2 -> 4.0.1
- kagglehub 0.3.3 -> 0.3.6
- keras 3.4.1 -> 3.5.0
- matplotlib 3.8.0 -> 3.10.0
- openai 1.54.3 -> 1.57.4
- pymc 5.18.0 -> 5.19.1
- safetensors 0.4.5 -> 0.5.0
- scikit-image 0.24.0 -> 0.25.0
- scikit-learn 1.5.2 -> 1.6.0
- sentence-transformers 3.2.1 -> 3.3.1
- tensorflow 2.17.0 -> 2.17.1
- torch 2.5.0 -> 2.5.1

71s completed at 7:34 PM

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Generate create a dataframe with 2 columns and 10 rows

```
year = int(input("Enter a year: "))

if (year % 4 == 0 and year % 100 != 0) or (year % 400 == 0):
    print(f"{year} is a leap year.")
else:
    print(f"{year} is not a leap year.")
```

Enter a year: 2003
2003 is not a leap year.

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Q Commands + Code + Text

```
[6] n = int(input("Enter a positive integer: "))

sum_n = n * (n + 1) // 2

print(f"The sum of the first {n} natural numbers is: {sum_n}")
```

Enter a positive integer: 25
The sum of the first 25 natural numbers is: 325

Start coding or generate with AI.

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Q Commands + Code + Text

```
num = int(input("Enter a number: "))

for i in range(1, 11):
    print(f"{num} x {i} = {num * i}")
```

Enter a number: 55
55 x 1 = 55
55 x 2 = 110
55 x 3 = 165
55 x 4 = 220
55 x 5 = 275
55 x 6 = 330
55 x 7 = 385
55 x 8 = 440
55 x 9 = 495
55 x 10 = 550

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Q Commands + Code + Text

```
factorial = 1
for i in range(1, num + 1):
    factorial *= i

print(f"The factorial of {num} is: {factorial}")
```

Enter a number: 6
The factorial of 6 is: 720

Q Commands | + Code + Text

```

n = int(input("Enter the number of terms: "))

a, b = 0, 1
print("Fibonacci Series:", a, b, end=" ")

for _ in range(n - 2):
    c = a + b
    print(c, end=" ")
    a, b = b, c
    
```

Enter the number of terms: 26
Fibonacci Series: 0 1 1 2 3 5 8 13 21 34 55 89 144 233 377 610 987 1597 2584 4181 6765

Q Commands | + Code + Text

```

[10] num = int(input("Enter a number: "))

if num > 1:
    for i in range(2, int(num ** 0.5) + 1):
        if num % i == 0:
            print(f"{num} is not a prime number.")
            break
    else:
        print(f"{num} is a prime number.")
else:
    print(f"{num} is not a prime number.")
    
```

Enter a number: 22
22 is not a prime number.


Q Commands | + Code + Text

```

num = input("Enter a number: ")


if num == num[::-1]:
    print(f"{num} is a palindrome.")
else:
    print(f"{num} is not a palindrome.")
    
```


Enter a number: 12
12 is not a palindrome.

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Q Commands + Code + Text

 Generate create a dataframe with 2 columns and 10 rows  

 [12] num = int(input("Enter a number: "))

rev_num = int(str(num)[::-1])

print(f"Reversed number: {rev_num}")


 Enter a number: 22
Reversed number: 22


 Generate create a dataframe with 2 columns and 10 rows  

  start = int(input("Enter the start of the range: "))
end = int(input("Enter the end of the range: "))

sum_even = sum(i for i in range(start, end + 1) if i % 2 == 0)

print(f"The sum of even numbers in the range {start} to {end} is: {sum_even}")

 Enter the start of the range: 12
Enter the end of the range: 23
The sum of even numbers in the range 12 to 23 is: 102

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Q Commands + Code + Text

 [14] num = int(input("Enter a number: "))

digit_count = len(str(abs(num)))

print(f"The number of digits in {num} is: {digit_count}")

 Enter a number: 12
The number of digits in 12 is: 2


  num = int(input("Enter a number: "))

Calculate sum of digits
sum_digits = sum(int(digit) for digit in str(num))

Check if Armstrong number
num_digits = len(str(num))
armstrong_sum = sum(int(digit) ** num_digits for digit in str(num))

print(f"Sum of digits of {num} is: {sum_digits}")

if num == armstrong_sum:
 print(f"{num} is an Armstrong number.")
else:
 print(f"{num} is not an Armstrong number.")

 Enter a number: 13
Sum of digits of 13 is: 4
13 is not an Armstrong number.

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13 15 is not an armstrong number.

3s

[16] num = int(input("Enter a number: "))

rev_num = int(str(num)[::-1])

print(f"Number in reverse order: {rev_num}")

Enter a number: 52
Number in reverse order: 25

import random

secret_number = random.randint(1, 100)

while True:
 guess = int(input("Guess the number (between 1 and 100): "))

 if guess < secret_number:
 print("Too low! Try again.")
 elif guess > secret_number:
 print("Too high! Try again.")
 else:
 print(f"Congratulations! You guessed the number {secret_number}.")
 break

*** Guess the number (between 1 and 100): 21
Too low! Try again.
Guess the number (between 1 and 100): 12

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18 rows = int(input("Enter the number of rows: "))

for i in range(1, rows + 1):
 print(" " * (rows - i) + "*" * i)

Enter the number of rows: 12

*
* *
* * *
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* * * * * * * * * * * * *

for i in range(1, 11):
 if i == 5:
 print("Breaking the loop at", i)
 break
 print(i)

1
2
3
4
Breaking the loop at 5



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Q Commands + Code + Text



```
[20] for i in range(1, 11):
      if i == 5:
          print("Skipping", i)
          continue
      print(i)
```

```
1
2
3
4
Skipping 5
6
7
8
9
10
```

```
[21] a = int(input("Enter the first number: "))
      b = int(input("Enter the second number: "))

      while b:
          a, b = b, a % b

      print(f"The GCD is: {a}")
```

```
Enter the first number: 41
Enter the second number: 51
The GCD is: 1
```



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Q Commands + Code + Text



```
[22] a = int(input("Enter the first number: "))
      b = int(input("Enter the second number: "))

      # Calculate GCD using the Euclidean algorithm
      def gcd(x, y):
          while y:
              x, y = y, x % y
          return x

      # Calculate LCM using the formula: LCM(a, b) = (a * b) / GCD(a, b)
      lcm = (a * b) // gcd(a, b)

      print(f"The LCM of {a} and {b} is: {lcm}")
```

```
Enter the first number: 21
Enter the second number: 12
The LCM of 21 and 12 is: 84
```



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Commands + Code + Text



```
[23] n = int(input("Enter a positive integer: "))

sum_squares = sum(i ** 2 for i in range(1, n + 1))

print(f"The sum of squares of the first {n} natural numbers is: {sum_squares}")
```

Enter a positive integer: 2
The sum of squares of the first 2 natural numbers is: 5

```
rows = int(input("Enter the number of rows: "))

for i in range(1, rows + 1):
    print(" " * (rows - i), end="")
    for j in range(1, i + 1):
        print(j, end=" ")
    print()
```

Enter the number of rows: 36

```

      1
     1 2
    1 2 3
   1 2 3 4
  1 2 3 4 5
 1 2 3 4 5 6
1 2 3 4 5 6 7
1 2 3 4 5 6 7 8
1 2 3 4 5 6 7 8 9
1 2 3 4 5 6 7 8 9 10
1 2 3 4 5 6 7 8 9 10 11
1 2 3 4 5 6 7 8 9 10 11 12
1 2 3 4 5 6 7 8 9 10 11 12 13
1 2 3 4 5 6 7 8 9 10 11 12 13 14
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22
```