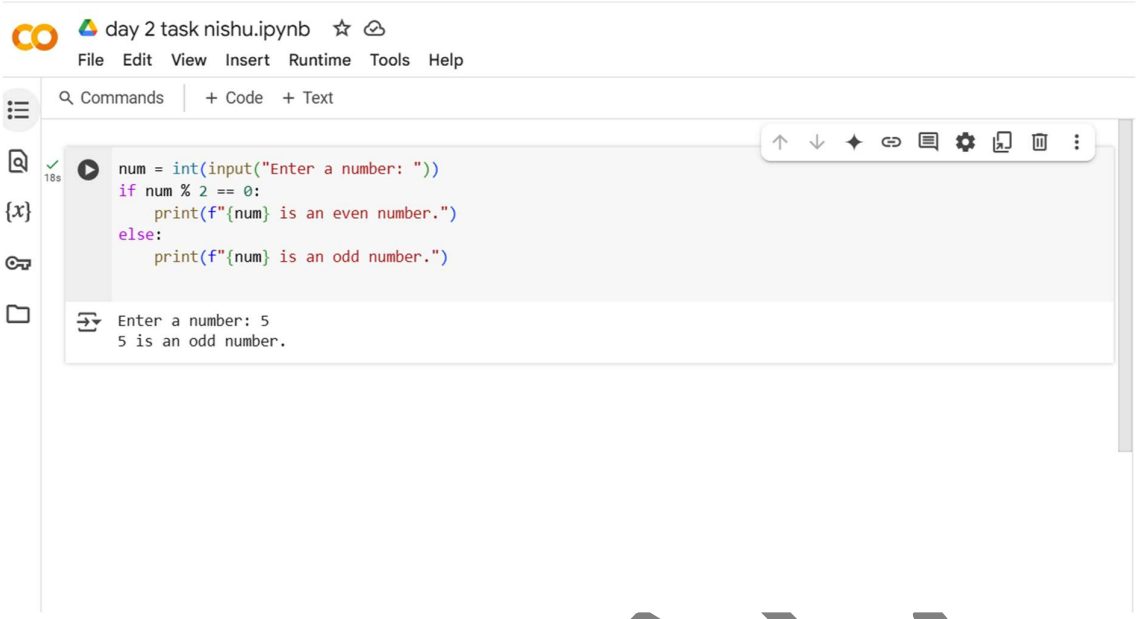
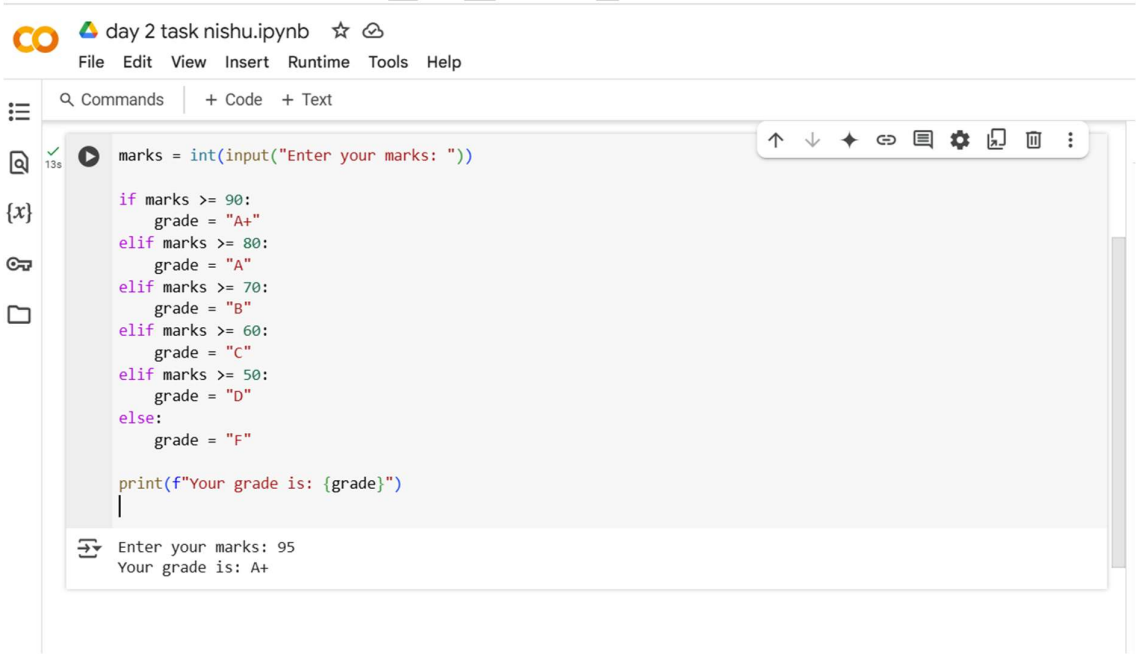

day 2 task nishu.ipynb
File Edit View Insert Runtime Tools Help
Commands + Code + Text
18s
num = int(input("Enter a number: "))
if num % 2 == 0:
print(f"{num} is an even number.")
else:
print(f"{num} is an odd number.")
Enter a number: 5
5 is an odd number.


day 2 task nishu.ipynb
File Edit View Insert Runtime Tools Help
Commands + Code + Text
13s
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+

day 2 task nishu.ipynb

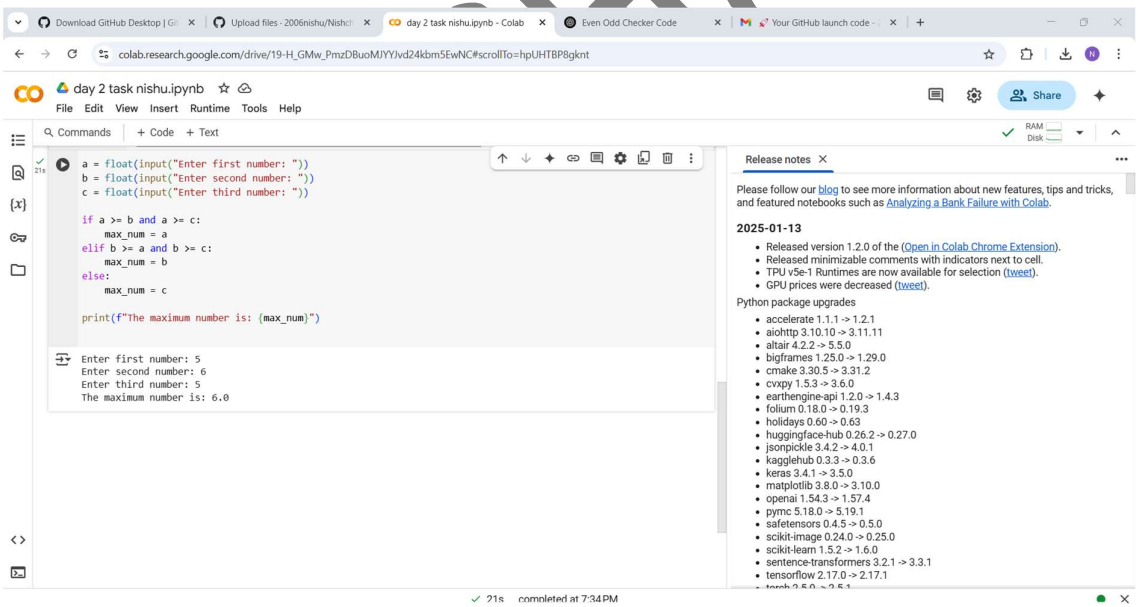
File Edit View Insert Runtime Tools Help

Commands + Code + Text

```
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.
```



day 2 task nishu.ipynb

File Edit View Insert Runtime Tools Help

Commands + Code + Text

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.
```

day 2 task nishu.ipynb

File Edit View Insert Runtime Tools Help

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.

day 2 task nishu.ipynb

File Edit View Insert Runtime Tools Help

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
```


day 2 task nishu.ipynb Saving...

File Edit View Insert Runtime Tools Help

Commands + Code + Text

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

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
```

day 2 task nishu.ipynb

File Edit View Insert Runtime Tools Help

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
```

day 2 task nishu.ipynb Saving...

File Edit View Insert Runtime Tools Help

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.
```

day 2 task nishu.ipynb

File Edit View Insert Runtime Tools Help

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.
```

day 2 task nishu.ipynb

File Edit View Insert Runtime Tools Help

Commands + Code + Text

Generate create a dataframe with 2 columns and 10 rows Close

```
[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 Close

```
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
```

day 2 task nishu.ipynb

File Edit View Insert Runtime Tools Help

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.
```

day 2 task nishu.ipynb

File Edit View Insert Runtime Tools Help

Commands + Code + Text

13 is not an Armstrong number.

[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
```

day 2 task nishu.ipynb

File Edit View Insert Runtime Tools Help

Commands + Code + Text

[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
           *
          * *
         * * *
        * * * *
       * * * * *
      * * * * * *
     * * * * * * *
    * * * * * * * *
   * * * * * * * * *
  * * * * * * * * * *
 * * * * * * * * * * *
* * * * * * * * * * * *
```

```
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
```

day 2 task nishu.ipynb

File Edit View Insert Runtime Tools Help

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
```

day 2 task nishu.ipynb

File Edit View Insert Runtime Tools Help

Commands + Code + Text

```
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
```

day 2 task nishu.ipynb

File Edit View Insert Runtime Tools Help

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
```