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# ----- Task 1 -----

# 1. Write a function to multiply two numbers and return the result
def mul(a, b):
    return a * b

print(mul(10, 5))
print()

# 2. Create a function to check whether a number is even or odd
def check(x):
    if x % 2 == 0:
        print("Number is even")
    else:
        print("Number is odd")

check(11)
print()

# 3. Write a function to find the maximum of three numbers
def Max(a, b, c):
    if a > b and a > c:
        print("a is greater")
    elif b > c:
        print("b is greater")
    else:
        print("c is greater")

Max(10, 4, 17)
print()

# 4. Create a function to calculate the factorial of a number
def fact(n):
    f = 1
    for i in range(1, n + 1):
        f = f * i
    print(f)

fact(int(input("Enter a number: ")))
print()

# 5. Write a function to count vowels in a given string
def vow(s):
    count = 0
    for x in s:
        if x in "aeiouAEIOU":
            count += 1
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DAY 8 TASK.py - C:\Users\krsb\OneDrive\Desktop\internship\DAY 8 TASK.py (3.10.0)

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        if x in "aeiouAEIOU":
            count += 1
    return count

print(vow("Hello from Subrahmanya"))
print()

# 6. Define a function to reverse a string
def rev(s):
    return s[::-1]

print(rev("Internship Program"))
print()

# 7. Write a function to check if a number is prime
def prime(n):
    if n <= 1:
        return False
    for i in range(2, n):
        if n % i == 0:
            return False
    return True

print(prime(7))
print()

# 8. Write a function using default arguments
def greet(name="Subrahmanya"):
    print("Hello", name)

greet()
print()

# 9. Create a function using keyword arguments
def student(name, age):
    print(name, age)

student(age=22, name="Subrahmanya")
print()

# 10. Write a recursive function to calculate Fibonacci series
def fib(n):
    if n <= 1:
        return n
    return fib(n - 1) + fib(n - 2)

print(fib(10))
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a = lambda x: x * x
print(a(4))

# ----- Task 2 -----

# 1. Handle ZeroDivisionError
try:
    a = 10
    b = 0
    print(a / b)
except ZeroDivisionError:
    print("Cannot divide by zero")
print()

# 2. Handle ValueError when converting input to integer
try:
    s = input("Enter a string: ")
    print(s)
    int(s)
except ValueError:
    print("String cannot be converted to int")
print()

# 3. Write a program using try and except
try:
    print(10 / x)
except:
    print("Error occurred.No variable found")
print()

# 4. Write a program using try, except, else
try:
    x = int(input("Enter number: "))
    print(10 / x)
except:
    print("Error occurred")
else:
    print("Operation successful")
print()

# 5. Write a program using try, except, finally
try:
    print(10 / x)
except:
    print("Error occurred.No variable found")
finally:
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try:
    print(10 / x)
except:
    print("Error occurred.No variable found")
print()

# 4. Write a program using try, except, else
try:
    x = int(input("Enter number: "))
    print(10 / x)
except:
    print("Error occurred")
else:
    print("Operation successful")
print()

# 5. Write a program using try, except, finally
try:
    print(10 / x)
except:
    print("Error occurred.No variable found")
finally:
    print("Finally block executed")
print()

# 6. Handle TypeError
try:
    a = 5 + "10"
except TypeError:
    print("Type mismatch error")
print()

# 7. Handle multiple exceptions
try:
    x = int(input("Enter number: "))
    print(10 / x)
except (ValueError, ZeroDivisionError):
    print("Invalid input or division by zero")
print()

# 8. Raise an exception using raise keyword
age = int(input("Enter age: "))
if age < 0:
    raise ValueError("Age cannot be negative")
else:
    print("Valid age")
```

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----- RESTART: C:/Users/KISAB/OneDrive/Desktop/Internship/1
50
Number is odd
c is greater
Enter a number: 12
479001600
7
margorP pihsnretnI
True
Hello Subrahmanya
Subrahmanya 22
55
16
Cannot divide by zero
Enter a string: Subrahmanya
Subrahmanya
String cannot be converted to int
Error occurred.No variable found
Enter number: 22
0.45454545454545453
Operation successful
0.45454545454545453
Finally block executed
Type mismatch error
Enter number: 22
0.45454545454545453
Enter age: 22
Valid age
>>> |
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