ass2

January 18, 2024

[ ]:
```
string = input("Enter a string value: ")
char_count = {}
for char in string:
    if char in char_count:
        char_count[char] += 1
    else:
        char_count[char] = 1

for char, count in char_count.items():
    print(f"{char}={count}", end=", ")
```

```
Enter a string value: assembly
a=1, s=2, e=1, m=1, b=1, l=1, y=1,
```

[ ]:
```
def find_maximum(a, b, c):
    return max(a, b, c)

num1 = 34
num2 = 12
num3 = 7
maximum = find_maximum(num1, num2, num3)
print(maximum)
```

```
34
```

[ ]:
```
def exponent(base, exp):
    return base ** exp
base = int(input("Enter the base: "))
exp = int(input("Enter the exponent: "))
result = exponent(base, exp)
print(result)
```

```
Enter the base: 2
Enter the exponent: 3
8
```

[ ]:
```
def sum_of_cubes(n):
    result = 0
```

```
    for i in range(1, n):
        result += i ** 3
    return result
n = 4
output = sum_of_cubes(n)
print(output)
```

```
36
```

[ ]:
```
for i in range(1, 11):
    if i % 2 == 0 and i % 5 == 0:
        print("FizzBuzz")
    elif i % 2 == 0:
        print("Fizz")
    elif i % 5 == 0:
        print("Buzz")
    else:
        print(i)
```

```
1
Fizz
3
Fizz
Buzz
Fizz
7
Fizz
9
FizzBuzz
```

[ ]:
```
def find_most_frequent(numbers):
    count_dict = {}
    for num in numbers:
        if num in count_dict:
            count_dict[num] += 1
        else:
            count_dict[num] = 1

    max_count = 0
    most_frequent_num = None
    for num, count in count_dict.items():
        if count > max_count:
            max_count = count
            most_frequent_num = num

    return most_frequent_num
```

```
numbers = [2, 3, 4, 2, 5, 2]
most_frequent = find_most_frequent(numbers)
print(most_frequent)
```

```
2
```

[ ]:
```
def sum_of_squares(numbers):
    result = 0
    for num in numbers:
        result += num ** 2
    return result

numbers = [2, 1, 3, 1]
sum_of_squares_result = sum_of_squares(numbers)
print(sum_of_squares_result)
```

```
15
```

[ ]:
```
for num in range(1, 16):
    if num % 2 == 0:
        print(f"{num}-even")
    else:
        print(f"{num}-odd")
```

```
1-odd
2-even
3-odd
4-even
5-odd
6-even
7-odd
8-even
9-odd
10-even
11-odd
12-even
13-odd
14-even
15-odd
```

[ ]:
```
def fahrenheit_to_celsius(f):
  return (f - 32) * 5/9

f = float(input("Enter a temperature in Fahrenheit: "))
c = fahrenheit_to_celsius(f)

print("Temperature in Celsius =", c)
```

```
Enter a temperature in Fahrenheit: 41
Temperature in Celsius = 5.0
```

[ ]:
```python
num = int(input("Enter a number: "))
def factorial(n):
   if n == 1:
       return 1
   else:
       return n * factorial(n-1)
result = factorial(num)
print("Factorial:", result)
```

```
Enter a number: 3
Factorial: 6
```