Assignment 7 - Renduchintala Navya - 2306AML112

1. Write a Python program to find the second smallest number in a list.

In [12]:
```python
def second_smallest(numbers):
    smallest = 0
    second_smallest = 0

    for num in numbers:
        if num < smallest:
            second_smallest = smallest
            smallest = num
        elif num < second_smallest and num != smallest:
            second_smallest = num

    return second_smallest
```

In [14]:
```python
numbers = [1, 2, -8, -2, 0]
result = second_smallest(numbers)
print(result)
```

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2. Write a Python program to change a given string to a new string where the first and last chars have been exchanged

In [15]:
```python
def exchange_first_last_chars(string):
    if len(string) <= 1:
        return string

    first_char = string[0]
    last_char = string[-1]
    middle_chars = string[1:-1]

    new_string = last_char + middle_chars + first_char
    return new_string
```

In [48]:
```python
input_string = input ("Enter a string : ")
result = exchange_first_last_chars(input_string)
print(result)
```

Enter a string : Hello
oellH

3. Write a Python function that takes a list of words and returns the length of the longest one

In [18]:
```python
def find_longest_word(words):
    longest_length = 0

    for word in words:
        if len(word) > longest_length:
            longest_length = len(word)

    return longest_length
```

In [52]:
```python
word_list = ['python', 'AI', 'ML', 'data science']
longest_word_length = find_longest_word(word_list)
print(longest_word_length)
```

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4. Write a Python program to remove the nth index character from a nonempty string

In [36]:
```python
def remove_nth_character(string, n):
    if n < 0 or n >= len(string):
        return string

    new_string = string[:n] + string[n+1:]
    return new_string
```

In [39]:
```python
input_string = input ("Enter a non empty string : ")
index_to_remove = int(input ("Enter the index to remove : "))
result = remove_nth_character(input_string, index_to_remove)
print(result)
```

```
Enter a non empty string : NAVYA
Enter the index to remove : 4
NAVY
```

5. Check if a given key already exists in a dictionary

input d = {1: 10, 2: 20, 3: 30, 4: 40, 5: 50, 6: 60} is_key_present(5) is_key_present(9) output Key is present in the dictionary

```python
In [45]: def is_key_present(dictionary, key):
             if key in dictionary:
                 print("Key is present in the dictionary")
             else:
                 print("Key is not present in the dictionary")
```

```python
In [47]: d = {1: 10, 2: 20, 3: 30, 4: 40, 5: 50, 6: 60}

         is_key_present(d,5)
         is_key_present(d,9)
```

```
Key is present in the dictionary
Key is not present in the dictionary
```

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