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[8]: def reverse_string(s):
    reversed_str = ""
    for i in range(len(s) - 1, -1, -1):
        reversed_str += s[i]
    return reversed_str

def main():
    input_string = "Hello, world!"
    reversed_string = reverse_string(input_string)
    print(f"Reversed string: {reversed_string}")

if __name__ == "__main__":
    main()
```

Reversed string: !dlrow ,olleH

```
[10]: def get_age():
    age = input("Please enter your age: ")
    if age.isnumeric() and int(age) >= 18:
        return int(age)
    else:
        return None

def main():
    age = get_age()
    if age is not None:
        print(f"You are {age} years old and eligible.")
    else:
        print("Invalid input. You must be at least 18 years old.")

if __name__ == "__main__":
    main()
```

Please enter your age: 18  
You are 18 years old and eligible.

Activate Windows  
Go to Settings to activate Windows.

```
[22]: def read_and_write_file(filename):
      try:
          # Open the file for reading
          with open('C:/Users/SONY/Desktop/New folder/about_ai.txt','r') as file:
              content = file.read()

          # Open the file for writing
          with open(filename, 'w') as file:
              # Convert content to uppercase before writing
              file.write(content.upper())

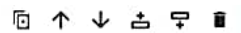
          # Print success message
          print(f"File '{filename}' processed successfully.")

      except Exception as e:
          # Print error message if an exception occurs
          print(f"An error occurred: {str(e)}")

def main():
    filename = "about_ai.txt"
    read_and_write_file(filename)

if __name__ == "__main__":
    main()
```

File 'about\_ai.txt' processed successfully.



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```
[25]: def merge_sort(arr):
    if len(arr) <= 1:
        return arr

    mid = len(arr) // 2
    left = arr[:mid]
    right = arr[mid:]

    # Recursively sort the left and right halves
    merge_sort(left)
    merge_sort(right)

    i = j = k = 0

    while i < len(left) and j < len(right):
        if left[i] < right[j]:
            arr[k] = left[i]
            i += 1
        else:
            arr[k] = right[j]
            j += 1
        k += 1

    # Copy any remaining elements from left and right sublists
    while i < len(left):
        arr[k] = left[i]
        i += 1
        k += 1
```

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```
# Copy any remaining elements from left and right sublists
while i < len(left):
    arr[k] = left[i]
    i += 1
    k += 1

while j < len(right):
    arr[k] = right[j]
    j += 1
    k += 1
arr=[38,27,43,3,9,82,10]
merge_sort(arr)
print(f"The sorted array is:{arr}")
```

The sorted array is:[3, 9, 10, 27, 38, 43, 82]