1)Explanation:-The issue is in the reverse\_string function where it is returning reversed, as reversed is an inbuilt function and it cannot be returned as a string.

corrected\_code:-

def reverse\_string(s):

reversed\_string= ""

for i in range(len(s) - 1, -1, -1):

reversed\_string+= s[i]

return reversed\_string

def main():

input\_string = "Hello, world!"

reversed\_string = reverse\_string(input\_string)

print(f"Reversed string: {reversed\_string}")

if \_\_name\_\_ == "\_\_main\_\_":

main()

2) Explanation: The issue is with comparing a string with a number, as we cannot compare a string with a number.

corrected code:-

def get\_age():

age = input("Please enter your age: ")

if age.isnumeric():

Str\_age=int(age)

if(Str\_age>18):

return int(age)

else:

return None

def main():

age = get\_age()

if age:

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()

3)Explanation: To fix this issue, you should first read the content of the file and store it in a variable, close the file, and then open it in write mode to write the modified content.

Corrected code:

def read\_and\_write\_file(filename):

try:

with open(filename, 'r') as file:

content = file.read()

with open(filename, 'w') as file:

file.write(content.upper())

print(f"File '{filename}' processed successfully.")

except Exception as e:

print(f"An error occurred: {str(e)}")

def main():

filename = "sample.txt"

read\_and\_write\_file(filename)

if \_\_name\_\_ == "\_\_main\_\_":

main()

4)Explanation: The issue is it's not returning the sorted array.

corrected code:-

def merge\_sort(arr):

if len(arr) <= 1:

return arr

mid = len(arr) // 2

left = arr[:mid]

right = arr[mid:]

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

while i<len(left):

arr[k]=left[i]

i+=1

k+=1

while j<len(right):

arr[k]=right[j]

j+=1

k+=1

return arr #returning the array

arr = [38, 27, 43, 3, 9, 82, 10]

sorted\_arr = merge\_sort(arr)

print(f"The sorted array is: {sorted\_arr}")