8.write a program to generate all the prime reverse of a string using recursion

Aim: To generate all the prime reverse of a string using recursion

Program:

```
def is_prime(num):
    if num < 2:
        return False
    for i in range(2, int(num ** 0.5) + 1):
        if num % i == 0:
            return False
    return True


def reverse_string(string):
    if len(string) == 0:
        return []
    if is_prime(int(string)):
        return [int(string)]
    else:
        return reverse_string(string[1:]) + reverse_string(string[:-1])


input_string = "12345"
prime_reverses = reverse_string(input_string)


print("All Prime Reverses of the string:", prime_reverses)
```

Output:

```
All Prime Reverses of the string: [5, 3, 3, 23, 3, 23, 23, 2]

=== Code Execution Successful ===
```

Time complexity:-O(n √n)