

Day – 9 Recursion

Problem 1: Given an array print all the sum of the subset generated from it, in the increasing order.

```
def print_subset_sums(arr):
```

```
    n = len(arr)
```

```
    subset_sums = []
```

```
    def generate_subsets(curr_sum, idx):
```

```
        if idx == n:
```

```
            subset_sums.append(curr_sum)
```

```
            return
```

```
            generate_subsets(curr_sum + arr[idx], idx + 1)
```

```
            generate_subsets(curr_sum, idx + 1)
```

```
    generate_subsets(0, 0)
```

```
    subset_sums.sort()
```

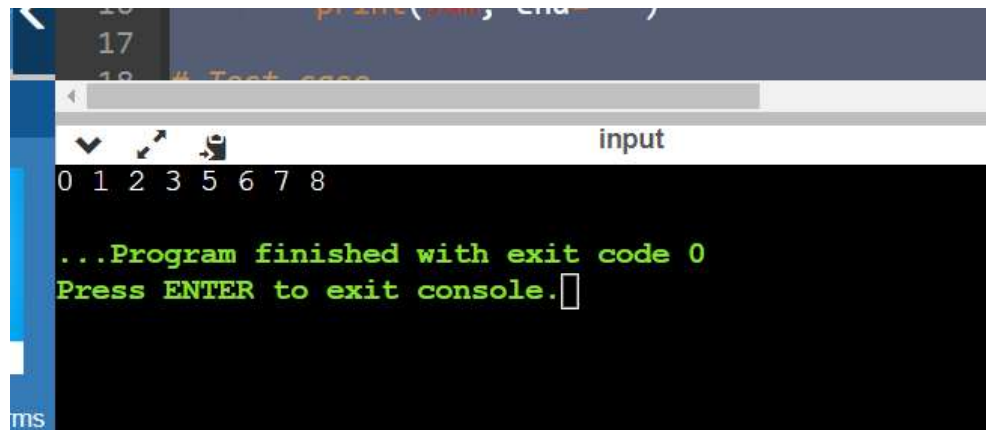
```
    for sum in subset_sums:
```

```
        print(sum, end=" ")
```

```
# Test case
```

```
arr = [5, 2, 1]
```

print_subset_sums(arr)



The screenshot shows a terminal window with a dark background. At the top, there is a light gray header bar with the word "input" on the right. Below the header, the text "0 1 2 3 5 6 7 8" is displayed in white. Further down, the text "...Program finished with exit code 0" and "Press ENTER to exit console." is shown in a light green color. A white cursor is positioned at the end of the second line. On the left side of the terminal, a vertical blue bar is visible, and the letters "ms" appear at the bottom left corner.

```
ms
```