

```
def bubbleSort(arr, n):
    index = list(range(1, n + 1))

    for i in range(n):
        for j in range(0, n - i - 1):
            if arr[j] > arr[j+1] :
                arr[j], arr[j+1] = arr[j+1], arr[j]
                index[j], index[j+1] = index[j+1], index[j]

    return index
```

```
def selectionSort(arr, n):
    index = list(range(1, n + 1))

    for i in range(n):
        min_idx = i
        for j in range(i + 1, n):
            if arr[min_idx] > arr[j]:
                min_idx = j

        arr[i], arr[min_idx] = arr[min_idx], arr[i]
        index[i], index[min_idx] = index[min_idx], index[i]

    return index
```

```
def putdata(arr, n):
    print('\n\nFollowing are the percentages of all the students... \n')
    print('*****')
    print('|      Roll No      |      Percentage      |')
    print('*****')

    for i in range(n):
        print(f'| \t{i + 1}\t| \t{arr[i]}\t|')
    print('_____ \n\n')
```

```
def putsorteddata(arr, n):
    print('\n*****')
    print('|      Roll No      |      Percentage      |')
    print('*****')

    for i in range(n):
        print(f'| \t{arr[i][0]}\t| \t{arr[i][1]}\t|')
    print('_____ \n\n')
```

```
def main():
    n = int(input('\nEnter number of student in 1st year: '))
    arr = []

    for i in range(n):
        arr.append(int(input(f'Enter percentage of roll no {i + 1}: ')))

    putdata(arr, n)
    arr2 = arr[:]
    n = len(arr)

    print('Sorting all the percentages using Bubble Sort:')
    index = bubbleSort(arr, n)
    putsorteddata(list(zip(index, arr)), n)

    print('Sorting all the percentages using Selection Sort:')
    index = selectionSort(arr2, n)
    putsorteddata(list(zip(index, arr2)), n)

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

"""

OUTPUT

Following are the percentages of all the students ...

*****		
	Roll No	Percentage
*****		
	1	85%
	2	82%
	3	77%
	4	91%
	5	89%
	6	45%
	7	62%
	8	73%
	9	99%
	10	95%
*****		

Sorting all the percentages using Bubble Sort:

*****		
	Roll No	Percentage
*****		
	6	45%
	7	62%
	8	73%
	3	77%
	2	82%
	1	85%
	5	89%
	4	91%
	10	95%
	9	99%
*****		

Sorting all the percentages using Selection Sort:

\*\*\*\*\*

Roll No	Percentage
*****	
6	45%
7	62%
8	73%
3	77%
2	82%
1	85%
5	89%
4	91%
10	95%
9	99%

"""