

and ~~resident~~ in the subclass - The class ~~resident~~ extends both ~~person~~ and ~~student~~ to inherit the properties of both classes. The example is easily understandable if you have the slightest knowledge of python class and python inheritance. This code yields the following output

Section - 2

① This is the python program to implement Selection of sort
Problem Description

The program sorts a list by selection sort
Problem Solution.

- ① Create a function selection-sort that takes a list as argument.
- ② Inside the function create a loop with a loop variable i that counts from 0 to the length of the list - 1.
- ③ Create a variable smallest with the initial value i .
- ④ Create an inner loop, ~~of the elements~~ with a loop variable j that counts from $i+1$ upto the length of the list - 1.
- ⑤ Inside the inner loop, if the element at index j is smaller than the element at index smallest, then set smallest equal to j .
- ⑥ After the inner loop finishes - swap the elements at indexes i and smallest.

Programme. / Source code

Here is the source code of a python programme to implement selection sort. the program output is shown below.

```
def selection_sort (alist):  
    for i in range (0, len (alist)-1):  
        smallest = i  
        for j in range (i+1, len (alist)):  
            if alist [j] < alist [smallest]:  
                smallest = j  
        alist [i], alist [smallest] = alist [smallest], alist [i]
```

```
a list = input ("Enter the list of numbers: ").split ()  
a list = [int (x) for x in a list]
```

```
selection_sort (a list)
```

```
print ("Sorted list :- ", end = " ")
```

```
print (a list)
```

Section - 3