

1. Python Program to Put Even and Odd elements of a List into two Different lists.

```
li = [1, 2, 3, 4, 5, 6, 7, 8, 9]
even_li = []
odd_li = []

for i in li:
    if i % 2 == 0:
        even_li.append(i)
    else:
        odd_li.append(i)

print ("Even List:", even_li)
print ("Odd List:", odd_li)
```

2. Python Program to Merge Two Lists and Sort it.

```
li1 = [5, 2, 9]
li2 = [4, 1, 8]

merged_list = li1 + li2
merged_list.sort()
print ("Sorted Merged List:", merged_list)
```

3. Python Program to Sort the List According to the Second Element in Sublist.

```
li = [[1, 3], [4, 1], [2, 2]]
li.sort (key=lambda x: x[1])
print(li)
```

4. Python Program to Find the Second Largest Number in a List Using Bubble sort.

```
nums = [10, 5, 20, 8, 15]
n = len(nums)
for i in range(n):
    for j in range(n - 1 - i):
        if nums[j] > nums[j + 1]:
            nums[j], nums[j + 1] = nums[j + 1], nums[j]

print("Second largest number is:", nums[-2])
```

5. Python Program to Sort a List According to the Length of the Elements within the list.

```
li = ["apple", "kiwi", "banana", "fig", "cherry"]

li.sort(key=len)
print ("Sorted list by length:", li)
```

6. Python Program to Find the Union of two Lists.

```
li1 = [1, 2, 3, 4]
li2 = [3, 4, 5, 6]

union_list = list (set (li1 + li2))
print ("Union of two lists:", union_list)
```

7. Python Program to Find the Intersection of Two Lists.

```
li1 = [1, 2, 3, 4]
li2 = [3, 4, 5, 6]

intersection_list = list(set(li1) & set(li2))
print("Intersection of two lists:", intersection_list)
```

8. Print 1 to 100 in snakes and ladder pattern.

```
board = []
for i in range (0, 10):
    row = []
    for j in range (i * 10 + 1, (i + 1) * 10 + 1):
        row.append(j)
    if(i % 2 != 0):
        row.reverse()
    board.append(row)
board.reverse()
print(board)
```

9. Write a program to create three lists of numbers, their squares and cubes.

```
numbers = [1, 2, 3, 4, 5]
squares = [x**2 for x in numbers]
cubes = [x**3 for x in numbers]

print ("Numbers:", numbers)
print ("Squares:", squares)
print ("Cubes:", cubes)
```

10. Write a program to print list after removing even numbers.

```
numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

odd_numbers = [x for x in numbers if x % 2 != 0]
print("List after removing even numbers:", odd_numbers)
```

