

Exposure CS 2021 **for CS1**

Chapter 13 **Output Slides** **For Students**

PowerPoint Presentation
created by:
Mr. John L. M. Schram
and Mr. Leon Schram
Authors of Exposure
Computer Science



Output Programs

These slides will present a variety of small programs. Each program processes an *array* in some manner.

Our concern will be with the output of each program, and more importantly, developing some methods to determine program output correctly, for programs that involves arrays.

You can expect that on quizzes and/or tests that only a program segment may be shown.

Teacher/Student Versions, Tablet PCs, and Inking

The “*For Teachers*” version of this presentation has 2 or more slides for each program.

The first slide only shows the program.
The other slide(s) show the program, worked out solution, and output.

The “*For Students*” version only has 1 slide for each program with no provided solution or output. Students are expected to work out the solutions either on paper, or ideally they can “ink” directly on their laptops.



1 # Output1301

2

3 list = [11,22,33,44,55,66,77,88,99]

4

5 print()

6 print(list[1])

7

8

9

10

11

1 # Output1302

2

3 list = [11,22,33,44,55,66,77,88,99]

4

5 print()

6 print(list[9])

7

8

9

10

11

1 # Output1303

2

3 list = [11,22,33,44,55,66,77,88,99]

4

5 print()

6 for k in range(9):

7 print(list[k],end = " ")

8 print()

9

10

11

```
1 # Output1304
2
3 list = [11,22,33,44,55,66,77,88,99]
4
5 print()
6 k = 1
7 while k <= 9:
8     print(list[k])
9     k += 1
10 print()
11
```

1 # Output1305

2

3 list = [11,99,22,88,33,77,44,66,55]

4

5 print()

6 print(list)

7

8

9

10

11

1 # Output1306

2

3 list = [23] * 10

4

5 list[8] = 9999

6

7 print()

8 print(list)

9

10

11

```
1 # Output1307
2
3 list = [-1] * 10
4
5 list[1] = list[3] = list[5] = list[7] = list[9] = 9999
6
7 print()
8 print(list)
9
10
11
```

1 # Output1308

2

3 list = [11,99,22,88,33,77,44,66,55]

4

5 list[1] = list[3] = list[5] = list[7] = list[9] = 9999

6

7 print()

8 print(list)

9

10

11

```
1 # Output1309
2
3 list = [11,99,22,88,33,77,44,66,55]
4
5 list[1] = list[3] = list[5] = list[7] = 9999
6
7 print()
8 print(list)
9
10
11
```

```
1 # Output1310
2
3 list = [11,99,22,88,33,77,44,66,55]
4
5 list[1] = list[3]
6 list[5] = list[7]
7 list[8] = list[6]
8 list[2] = list[0]
9
10 print()
11 print(list)
12
```

```
1 # Output1311
2
3 def swap(list,a,b):
4     list[a] = list[b]
5     list[b] = list[a]
6
7 # main
8 list = [11,99,22,88,33,77,44,66,55]
9 swap(list,3,1)
10 swap(list,7,5)
11 swap(list,6,8)
12 swap(list,0,2)
13 print()
14 print(list)
15
```

```
1 # Output1312
2
3 def swap(list,a,b):
4     temp = list[a]
5     list[a] = list[b]
6     list[b] = temp
7
8 # main
9 list = [11,99,22,88,33,77,44,66,55]
10 swap(list,3,1)
11 swap(list,7,5)
12 swap(list,6,8)
13 swap(list,0,2)
14 print()
15 print(list)
16
```

```
1 # Output1313
2
3 list = [11,99,22,88,33,77,44,66,55]
4
5 list[1] = list[2] + list[0]
6 list[8] = list[7] + list[6]
7 list[5] = list[8] - list[1]
8
9 print()
10 print(list)
11
```



```
1 # Output1314
2
3 list1 = [11,99,22,88,33,77,44,66,55]
4 list2 = ["Hello"] * 100
5
6 print()
7 print(len(list1))
8 print(len(list2))
9
10
11
```

```
1 # Output1315
2
3 list = [11,99,22,88,33,77,44,66,55]
4
5 for k in range(len(list)):
6     list[k] += 1
7
8 print()
9 print(list)
10
11
```

```
1 # Output1316
2
3 list = [11,99,22,88,33,77,44,66,55]
4
5 for number in list:
6     number += 1
7
8 print()
9 print(list)
10
11
```

```
1 # Output1317
2
3 list = [11,99,22,88,33,77,44,66,55]
4
5 list[1] = list[2] + list[0]
6 x = 1
7
8 if list[1] == list[4]:
9     x = 11
10
11 for k in range(len(list)):
12     list[k] //= x
13
14 print()
15 print(list)
16
```

1 # Output1318

2

3 list = [11,99,22,88,33,77,44,66,55]

4

5 print()

6 print(list[len(list)])

7

8

9

10

11

1 # Output1319

2

3 list = [11,99,22,88,33,77,44,66,55]

4

5 print()

6 print(list[len(list)-1])

7

8

9

10

11

1 # Output1320

2

3 list = [11,99,22,88,33,77,44,66,55]

4

5 print()

6 print(list)

7

8 list.sort()

9

10

11

1 # Output1321

2

3 list = [11,99,22,88,33,77,44,66,55]

4

5 list.sort()

6 list.reverse()

7

8 print()

9 print(list)

10

11

1 # Output1322

2

3 list = [11,99,22,88,33,77,44,66,55]

4

5 list.append(100)

6

7 print()

8 print(list)

9

10

11

1 # Output1323

2

3 list = [11,99,22,88,33,77,44,66,55]

4

5 list.insert(4,100)

6

7 print()

8 print(list)

9

10

11

1 # Output1324

2

3 list = [11,99,22,88,33,77,44,66,55]

4

5 list.remove(77)

6

7 print()

8 print(list)

9

10

11

1 # Output1325

2

3 list = [11,99,22,88,33,77,44,66,55]

4

5 list.remove(100)

6

7 print()

8 print(list)

9

10

11

1 # Output1326

2

3 list = [11,99,22,88,33,77,44,66,55]

4

5 print()

6 print(77 in list)

7 print(100 in list)

8

9

10

11

```
1 # Output1327
2
3 list = [11,99,22,88,33,77,44,66,55]
4
5 for k in range(65,101):
6     if k in list:
7         list.remove(k)
8
9 print()
10 print(list)
11
```

1 # Output1328

2

3 list = [11,99,22,88,33,77,44,66,55,11]

4

5 list.remove(11)

6

7 print()

8 print(list)

9

10

11

1 # Output1329

2

3 list = [11,99,22,88,33,77,44,66,55,90,70,50,30]

4

5 del list[11]

6

7 print()

8 print(list)

9

10

11

1 # Output1330

2

3 list = [11,99,22,88,33,77,44,66,55,90,70,50,30]

4

5 del list[5:10]

6

7 print()

8 print(list)

9

10

11