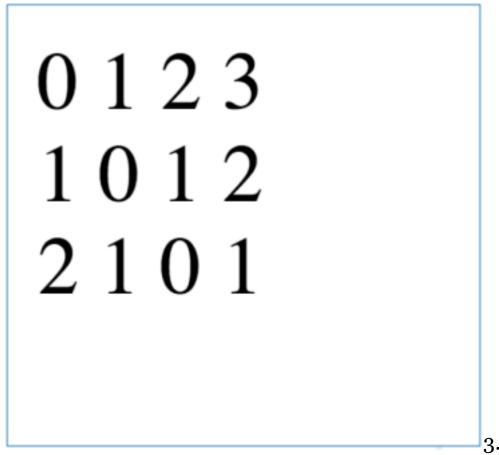# ARRAYS AND LOOP
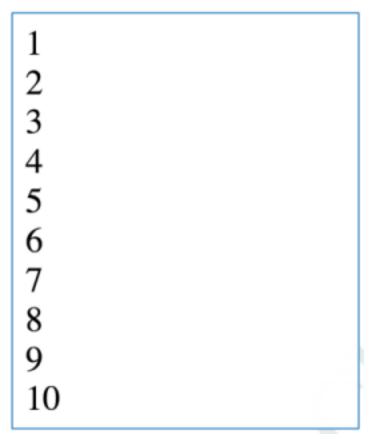
1. Declare and initialize an empty multidimensional array. (Array of arrays)

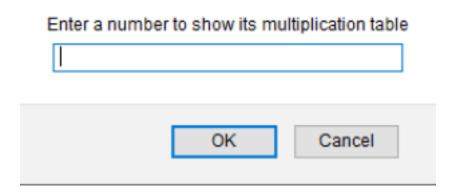2. Declare and initialize a multidimensional array representing the following matrix:

```
0 1 2 3
1 0 1 2
2 1 0 1
```

3. Write a program to print numeric counting from 1 to 10.

```
1
2
3
4
5
6
7
8
9
10
```

4. Write a program to print multiplication table of any number using for loop. Table number & length should be taken as an input from user.

Enter a number to show its multiplication table

| |

OK   Cancel

Enter length multiplication table

| |

OK   Cancel

Multiplication table of 2
Length 15

2 x 1 = 2
2 x 2 = 4
2 x 3 = 6
2 x 4 = 8
2 x 5 = 10
2 x 6 = 12
2 x 7 = 14
2 x 8 = 16
2 x 9 = 18
2 x 10 = 20
2 x 11 = 22
2 x 12 = 24
2 x 13 = 26
2 x 14 = 28
2 x 15 = 30

5. Write a program to print items of the following array using for loop:

fruits = ["apple", "banana", "mango", "orange", "strawberry"]

apple
banana
mango
orange
strawberry

Element at index 0 is apple
Element at index 1 is banana
Element at index 2 is mango
Element at index 3 is orange
Element at index 4 is strawberry

6. Generate the following series in your browser. See example output.

a. Counting: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15

b. Reverse counting: 10, 9, 8, 7, 6, 5, 4, 3, 2, 1 c. Even: 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20

d. Odd: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19

e. Series: 2k, 4k, 6k, 8k, 10k, 12k, 14k, 16k, 18k, 20k

Counting:

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15,

Reverse counting:

10, 9, 8, 7, 6, 5, 4, 3, 2, 1,

Even:

0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20,
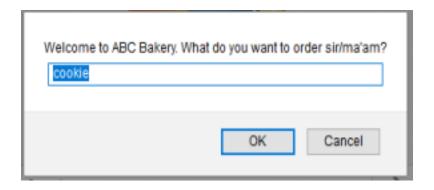
Odd:

1, 3, 5, 7, 9, 11, 13, 15, 17, 19,

Series:
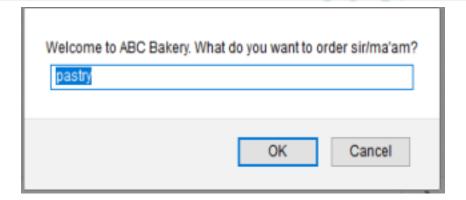
2k, 4k, 6k, 8k, 10k, 12k, 14k, 16k, 18k, 20k,

7. You have an array
A = ["cake", "apple pie", "cookie", "chips", "patties"]
Write a program to enable "search by user input" in an array.
After searching, prompt the user whether the given item is found in the list or not. Example:

Welcome to ABC Bakery. What do you want to order sir/ma'am?

cookie

OK   Cancel

cookie is **available** at index 2 in our bakery

Welcome to ABC Bakery. What do you want to order sir/ma'am?

pastry

OK   Cancel

We are sorry. pastry is **not available** in our bakery

8. Write a program to identify the largest number in the given array.
A = [24, 53, 78, 91, 12].

```
Array items: 24,53,78,91,12
The largest number is 91
```

9. Write a program to identify the smallest number in the given array.

A = [24, 53, 78, 91, 12]

```
Array items: 24,53,78,91,12
The smallest number is 12
```

10. Write a program to print multiples of 5 ranging 1 to 100.

⚠️