



Presidential Initiative for Artificial Intelligence and Computing (PIAIC)

<https://www.piaic.org>

JavaScript Programming Assignment 3

Note: Check Rules end of document

1. Declare and Initialize an array and store available education qualifications in Pakistan (e.g. SSC, HSC, BCS, BS, BCOM, MS, M. Phil., PhD). Show the listed qualifications in your browser like:

Qualifications:

- 1) SSC
- 2) HSC
- 3) BCS
- 4) BS
- 5) BCOM
- 6) MS
- 7) M. Phil.
- 8) PhD

2. Write a program to store 3 student names in an array. Take another array to store score of these three students. Assume that total marks are 500 for each student, display the scores & percentages of students like:

Score of Michael is 320. Percentage: 64%
Score of John is 230. Percentage: 46%
Score of Tony is 480. Percentage: 96%

3. Initialize an array with color names. Display the array elements in your browser.
 - A. Ask the user what color he/she wants to add to the beginning & add that color to the beginning of the array. Display the updated array in your browser.
 - B. Ask the user what color he/she wants to add to the end & add that color to the end of the array. Display the updated array in your browser.
 - C. Add two more colors to the beginning of the array. Display the updated array in your browser.
 - D. Delete the first color in the array. Display the updated array in your browser.
 - E. Delete the last color in the array. Display the updated array in your browser.
 - F. Ask the user at which index he/she wants to add a color & color name. Then add the color to desired position/index. Display the updated array in your browser.
 - G. Ask the user at which index he/she wants to delete color(s) & how many colors he/she wants to delete. Then remove the same number of color(s) from user-defined position/index. . Display the updated array in your browser.

4. Write a program to initialize an array with city names. Copy 3 array elements from cities array to selected cities array.

Cities list:

Karachi,Lahore,Islamabad,Quetta,Peshawar

Selected cities list:

Islamabad,Quetta

5. Write a JavaScript program to remove all duplicate items from an array

Sample array : `var arr1=[3, 'a', 'a', 'a', 2, 3, 'a', 3, 'a', 2, 4, 9, 3];`

Sample Output : `[3, 'a', 2, 4, 9]`

6. We have the following arrays:

`var aCities = ["Karachi", "Lahore", "Islamabad", "Faisalabad"];`

`var o = ["th","st","nd","rd"];`

Write a JavaScript program to display in the following way :

1st choice is Karachi

2nd choice is Lahore

3rd choice is Islamabad

7. Write a JavaScript program to compute the union of two arrays.

(Merge two arrays by removing all duplicates)

`var a = [10,20,4,40,60,70]`

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

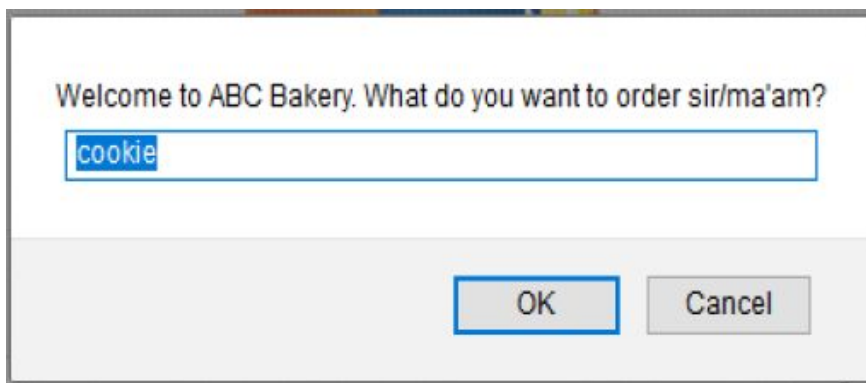
Output should be:

`[1,2,3,4,5,6,7,8,9,10,20,40,60,70]`

8. 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
9. 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

10. Sort an array from smallest to largest value
A = [20,53,78,4,91,12]
Output should be: [4,12,20,53,78,91]
11. 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:



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

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

OK Cancel

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

Rules for Assignment completion and submission

- 1) Each task should be in separate file
- 2) Files name should be the task name e.g task1, task2, task 3
 - a) task1.html
 - b) task1.js
- 3) You should upload your code on GitHub or google drive and share link for code review
- 4) All files in assignment should be in one folder and folder name should contains assignment number e.g assignment1_YourRollNo, assignment2_YourRollNo
 - a) Create a folder
 - b) Add all tasks file in this assignment folder
 - c) Push code on github or upload folder on google drive
 - d) Share github url or drive url for code review