S.No: 1	Exp. Name: ***Operations on Array***	Date: 2022-06-27

Aim:

Write a menu driven program to insert, delete and display element(s) in one dimensional array.

Input and Output Format

```
1.Create
2.Display
3.Insert
4.Delete
5.Exit
Enter your choice : 1
Enter the size of the array elements : 3
Enter the elements for the array : 1 2 3
1.Create
2.Display
3.Insert
4.Delete
5.Exit
Enter your choice : 2
The array elements are : 1 2 3
1.Create
2.Display
3.Insert
4.Delete
5.Exit
Enter your choice : 3
Enter the position(index) for the new element : 5
Enter the element to be inserted : 4
Invalid position.
1.Create
2.Display
3.Insert
4.Delete
5.Exit
Enter your choice : 3
Enter the position(index) for the new element : 2
Enter the element to be inserted : 5
1.Create
2.Display
3.Insert
4.Delete
5.Exit
Enter your choice : 2
The array elements are : 1 2 5 3
1.Create
2.Display
3.Insert
4.Delete
5.Exit
Enter your choice : 4
Enter the position(index) of the element to be deleted : 5
Invalid position.
1.Create
2.Display
3.Insert
4.Delete
5.Exit
Enter your choice : 4
Enter the position(index) of the element to be deleted : 2
The deleted element is : 5
```

```
1.Create
2.Display
3.Insert
4.Delete
5.Exit
Enter your choice : 2
The array elements are : 1 2 3
1.Create
2.Display
3.Insert
4.Delete
5.Exit
Enter your choice : 5
```


Source Code:

arrayoperations.c

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
1.Create 1
2.Display 1
3.Insert 1
4.Delete 1
5.Exit 1
Enter your choice : 1
Enter the size of the array elements : 5
Enter the elements for the array : 1 2 3 4 5
1.Create 2
2.Display 2
3.Insert 2
4.Delete 2
5.Exit 2
Enter your choice : 2
The array elements are : 1 2 3 4 5 3
1.Create 3
2.Display 3
3.Insert 3
4.Delete 3
5.Exit 3
Enter your choice : 3
Enter the position(index) for the new element : 3
Enter the element to be inserted : 8
1.Create 2
2.Display 2
3.Insert 2
4.Delete 2

Test Case - 1
5.Exit 2
Enter your choice : 2
The array elements are : 1 2 3 8 4 5 4
1.Create 4
2.Display 4
3.Insert 4
4.Delete 4
5.Exit 4
Enter your choice : 4
Enter the position(index) of the element to be deleted : 3
The deleted element is : 8 5
1.Create 5
2.Display 5
3.Insert 5
4.Delete 5
5.Exit 5
Enter your choice : 5

Test Case - 2
User Output
1.Create 1
2.Display 1
3.Insert 1
4.Delete 1
5.Exit 1
Enter your choice : 1
Enter the size of the array elements : 5
Enter the elements for the array : 2 3 4 1 5
1.Create 2
2.Display 2
3.Insert 2
4.Delete 2
5.Exit 2
Enter your choice : 2
The array elements are : 2 3 4 1 5 3
1.Create 3
2.Display 3
3.Insert 3
4.Delete 3
5.Exit 3
Enter your choice : 3
Enter the position(index) for the new element : 4
Enter the element to be inserted : 23
1.Create 2
2.Display 2
3.Insert 2
4.Delete 2
5.Exit 2
Enter your choice : 2

Test Case - 2
The array elements are : 2 3 4 1 23 5 4
1.Create 4
2.Display 4
3.Insert 4
4.Delete 4
5.Exit 4
Enter your choice : 4
Enter the position(index) of the element to be deleted : 1
The deleted element is : 3 2
1.Create 2
2.Display 2
3.Insert 2
4.Delete 2
5.Exit 2
Enter your choice : 2
The array elements are : 2 4 1 23 5 2
1.Create 2
2.Display 2
3.Insert 2
4.Delete 2
5.Exit 2
Enter your choice : 2
The array elements are : 2 4 1 23 5 3
1.Create 3
2.Display 3
3.Insert 3
4.Delete 3
5.Exit 3
Enter your choice : 3
Enter the position(index) for the new element : 2
Enter the element to be inserted : 56
1.Create 2
2.Display 2
3.Insert 2
4.Delete 2
5.Exit 2
Enter your choice : 2
The array elements are : 2 4 56 1 23 5 4
1.Create 4
2.Display 4
3.Insert 4
4.Delete 4
5.Exit 4
Enter your choice : 4
Enter the position(index) of the element to be deleted : 3
The deleted element is : 1 5
1.Create 5
2.Display 5
3.Insert 5
4.Delete 5

Test Case - 2
5.Exit 5
Enter your choice : 5

Test Case - 3
User Output
1.Create 1
2.Display 1
3.Insert 1
4.Delete 1
5.Exit 1
Enter your choice : 1
Enter the size of the array elements : 3
Enter the elements for the array : 1 2 3
1.Create 2
2.Display 2
3.Insert 2
4.Delete 2
5.Exit 2
Enter your choice : 2
The array elements are : 1 2 3 3
1.Create 3
2.Display 3
3.Insert 3
4.Delete 3
5.Exit 3
Enter your choice : 3
Enter the position(index) for the new element : 5
Enter the element to be inserted : 4
Invalid position. 3
1.Create 3
2.Display 3
3.Insert 3
4.Delete 3
5.Exit 3
Enter your choice : 3
Enter the position(index) for the new element : 2
Enter the element to be inserted : 5
1.Create 2
2.Display 2
3.Insert 2
4.Delete 2
5.Exit 2
Enter your choice : 2
The array elements are : 1 2 5 3 4
1.Create 4
2.Display 4
3.Insert 4
4.Delete 4
5.Exit 4

Test Case - 3
Enter your choice : 4
Enter the position(index) of the element to be deleted : 5
Invalid position. 4
1.Create 4
2.Display 4
3.Insert 4
4.Delete 4
5.Exit 4
Enter your choice : 4
Enter the position(index) of the element to be deleted : 2
The deleted element is : 5 2
1.Create 2
2.Display 2
3.Insert 2
4.Delete 2
5.Exit 2
Enter your choice : 2
The array elements are : 1 2 3 5
1.Create 5
2.Display 5
3.Insert 5
4.Delete 5
5.Exit 5
Enter your choice : 5