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

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 yo	our choice : 2	
The arra	ay elements are : 1 2 3 8 4 5 4	
1.Create	<u>.</u> 4	
2.Displa	ay 4	
3.Insert	: 4	
4.Delete	<u>.</u> 4	
5.Exit 4		
Enter yo	our choice : 4	
Enter th	ne position(index) of the element to be deleted :	
The dele	eted element is : 85	
1.Create	5	
2.Displa	ay 5	
3.Insert	: 5	
4.Delete	· 5	
5.Exit 5		
Enter vo	our choice : 5	

Test Case - 2	
User Output	
l.Create 1	
2.Display 1	
3.Insert 1	
1.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	
l.Create 2	
2.Display 2	
3.Insert 2	
1.Delete 2	
5.Exit 2	
Enter your choice : 2	
The array elements are : 2 3 4 1 5 3	
L.Create 3	
2.Display 3	
3.Insert 3	
1.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	
l.Create 2	
2.Display 2	
3.Insert 2	
1.Delete 2	
5.Exit 2	
Enter your choice : 2	

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	Test Case - 2
The	array elements are : 2 3 4 1 23 5 4
1.Cr	eate 4
2.Di	splay 4
3.In	sert 4
4.De	lete 4
5.Ex	it 4
Ente	r your choice : 4
	r the position(index) of the element to be deleted :
	deleted element is : 3 2
1.Cr	eate 2
2.Di	splay 2
	sert 2
4 . De	lete 2
5.Ex	
	r your choice : 2
	array elements are : 2 4 1 23 5 2
	eate 2
	splay 2
	sert 2
	lete 2
5.Ex	
	r your choice : 2
	array elements are : 2 4 1 23 5 3
	eate 3
	splay 3
	sert 3
	lete 3
5.Ex	
	r your choice : 3
	r the position(index) for the new element : 2
Ente	r the element to be inserted : 56
1.Cr	eate 2
2.Di	splay 2
3.In	sert 2
4.De	lete 2
5.Ex	it 2
Ente	r your choice : 2
The	array elements are : 2 4 56 1 23 5 4
1.Cr	eate 4
2.Di	splay 4
3.In	sert 4
4.De	lete 4
5.Ex	it 4
Ente	r your choice : 4
	r the position(index) of the element to be deleted :
	deleted element is : 15
1.Cr	eate 5
2.Di	splay 5
	sert 5
	lete 5

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

Test Case - 3	
User Output	
.Create 1	
2.Display 1	
3.Insert 1	
.Delete 1	
5.Exit 1	
Enter your choice : 1	
Inter the size of the array elements : 3	
Inter the elements for the array : 1 2 3	
.Create 2	
2.Display 2	
3.Insert 2	
Delete 2	
5.Exit 2	
nter your choice : 2	
The array elements are : 1 2 3 3	
.Create 3	
2.Display 3	
3.Insert 3	
.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	
.Create 3	
2.Display 3	
3.Insert 3	
.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	
.Create 2	
2.Display 2	
3.Insert 2	
.Delete 2	
5.Exit 2	
Inter your choice : 2	
The array elements are : 1 2 5 3 4	
.Create 4	
2.Display 4	
3.Insert 4	
.Delete 4	
5.Exit 4	

Test Case - 3	
Enter your choice : 4	
Enter the position(index) of the element to be deleted :	9
Invalid position. 4	
L.Create 4	
2.Display 4	
3.Insert 4	
1.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	
l.Create 2	
2.Display 2	
3.Insert 2	
1.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	
1.Delete 5	
5.Exit 5	
Enter your choice : 5	