

Lab Report-01

problem-1:C program to insert an element in an array?

Pseudocode:

```
#include < >
()

scanf("%d",&size);
for ( i = 0; i <size; i++)
{
    printf("element-%d:",i+1);
    scanf("%d",&arr[i]);
}

}

for ( i = size; i >=posi-1; i--)
    arr[i+1]=arr[i];

arr[posi-1]=value;
for ( i = 0; i <=size; i++)
{
    printf("%4d",arr[i]);
```

Code:

```
/* C program to insert an element in an array */

#include <stdio.h>

int main()
{
    int arr[10],i,size,posi,value;
    printf("enter the size how many array index:\n");
    scanf("%d",&size);
    for ( i = 0; i <size; i++)
    {
        printf("element-%d:",i+1);
        scanf("%d",&arr[i]);
    }
    printf("\nprint the orgilan array.\n");
    for ( i = 0; i <size; i++)
    {
        printf("%4d",arr[i]);

    }
    printf("\n enter the position of index.\n");
    scanf("%d",&posi);
    printf("\n enter the value is:\n");
    scanf("%d",&value);
    for ( i = size; i >=posi-1; i--)
    {
        arr[i+1]=arr[i];

    }
    arr[posi-1]=value;
    printf("\n print the new store element.\n");
    for ( i = 0; i <=size; i++)
    {

        printf("%4d",arr[i]);
    }
    return 0;
}
```

Output:

```
PS D:\Batch_213_Semester_03\Data_Structure& ALgorithm_lab\lab_1>  
enter the size how many array index:
```

```
5
```

```
element-1:5
```

```
element-2:7
```

```
element-3:13
```

```
element-4:10
```

```
element-5:3
```

```
print the orgilan array.
```

```
5 7 13 10 3
```

```
enter the position of index.
```

```
2
```

```
enter the value is:
```

```
53
```

```
print the new store element.
```

```
5 53 7 13 10 3
```

Discussion:

In this problem ,I have face to problem when I do not understand array[position-1] equal to value.But I solved this problem.

Problem-2:C program to delete an element in an array ?

Pseudocode:

```
int main()
{
    int arr[10],i,n,pos;
    printf("enter the total size:\n");
    scanf("%d",&n);

    }

    for ( i = pos-1; i<n-1; i++)
    {
        arr[i]=arr[i+1];
    }
    printf("\n delete the value:\n");

    {
        printf("%4d",arr[i]);
    }

}
```

Code:

```
/* C program to delete an element in an array */
#include <stdio.h>
/**
 * @brief description
 * @author Pankaj Mahanto (213902002)
<aryanpankaj78@gmail.com>
 * @date 2022-06-18 (08:42)
 *
 * @returns int
 */

int main()
{
    int arr[10],i,n,pos;
    printf("enter the total size:\n");
    scanf("%d",&n);
    for ( i = 0; i < n; i++)
    {
        printf("element-%d:",i+1);
        scanf("%d",&arr[i]);
    }
}
```

```
printf("\n enter hte position:\n");
scanf("%d",&pos);
for ( i = pos-1; i<n-1; i++)
{
    arr[i]=arr[i+1];
}
printf("\n delete the value:\n");
for ( i = 0; i < n-1; i++)
{
    printf("%4d",arr[i]);
}

return 0;
}
```

Output:

enter the total size:

5

element-1:10

element-2:20

element-3:30

element-4:15

element-5:2

enter hte position:

2

delete the value:

10 30 15 2

PS D:\Batch_213_Semester_03\Data_Structure&
ALgorithm_lab\lab_1>

Discussion:

In this problem I do not have face any problem and finally solved this problem easily.