

DSA Practical No -2

AIM :- [A] : Create an array of size n and write a program to insert an element (beginning, end and specific position).

[B]:- Create an array of size n and write a program to delete an element (beginning, end and specific position).

Program:

[A] Insertion at begining

```
#include<iostream>

using namespace std;

int main(){

    int arr[100];

    int size;

    cout<<"enter the size of array"<<endl;

    cin>>size;

    int no;

    cout<<"enter the number you want to add initially"<<endl;

    cin>>no;

    cout<<"enter array"<<endl;

    for(int i=0;i<size;++i){

        cin>>arr[i];

    }

    for(int i=size;i>0;--i){

        arr[i]=arr[i-1]
```

```

}

arr[0]=no;

cout<<"updated array is"<<endl;

for(int i=0;i<=size;++i){

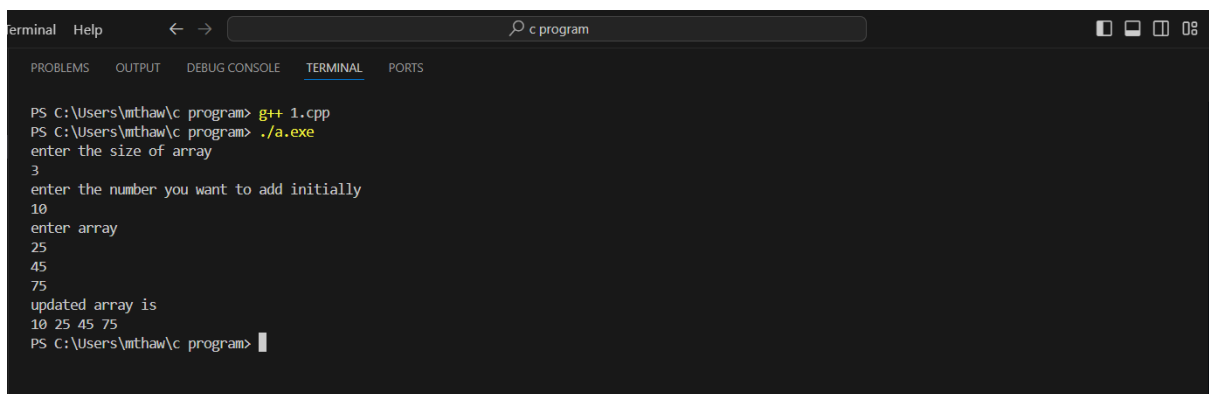
    cout<<arr[i]<<" ";

}

}

```

Output:



```

terminal Help  ← →  c program
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS C:\Users\mithaw\c program> g++ 1.cpp
PS C:\Users\mithaw\c program> ./a.exe
enter the size of array
3
enter the number you want to add initially
10
enter array
25
45
75
updated array is
10 25 45 75
PS C:\Users\mithaw\c program>

```

[A] Insertion at end

```

#include<iostream>

using namespace std;

int main(){

    int array[50];

    int size;

    int element;

    cout<<"enter the element you want to add at end"<<endl;

    cin>>element;

    cout<<"enter the size of array"<<endl;

```

```

cin>>size;

cout<<"enter array"<<endl;

for(int i=0;i<size;i++){

    cin>>array[i];

}

array[size]=element;

cout<<"updated array is"<<endl;

for(int i=0;i<=size;i++){

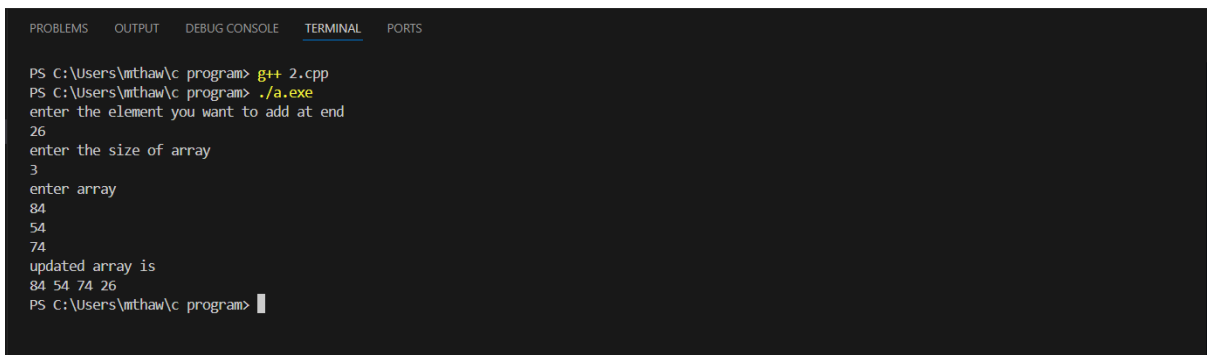
    cout<<array[i]<<" ";

}

}

```

Output:



```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS C:\Users\mithaw\c program> g++ 2.cpp
PS C:\Users\mithaw\c program> ./a.exe
enter the element you want to add at end
26
enter the size of array
3
enter array
84
54
74
updated array is
84 54 74 26
PS C:\Users\mithaw\c program>

```

[A] Insertion at any position

```

#include<iostream>

using namespace std;

int main(){

    int array[50];

    int size;

    cout<<"enter the size of array"<<endl;

```

```

cin>>size;

int element;

cout<<"enter the element you want to add"<<endl;

cin>>element;

int position;

cout<<"enter the position of element in which you want to add element"<<endl;

cin>>position;

cout<<"enter the array"<<endl;

for(int i=0;i<size;i++){

    cin>>array[i];

}

for(int i=size;i>position;i--){

    array[i]=array[i-1];

}

array[position]=element;

cout<<"updated array is"<<endl;

for(int i=0;i<=size;i++){

    cout<<array[i]<<" ";

}

}

```

Output:

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

enter the size of array
3
enter the element you want to add
23
enter the position of element in which you want to add element
2
enter the array
15
16
12
updated array is
15 16 23 12
PS C:\Users\mithaw\c program> █
```

[B] Deleting element at beginning

```
#include<iostream>
```

```
using namespace std;
```

```
int main(){
```

```
    int array[50];
```

```
    int size;
```

```
    cout<<"enter the size of array"<<endl;
```

```
    cin>>size;
```

```
    cout<<"enter array"<<endl;
```

```
    for(int i=0;i<size;i++){
```

```
        cin>>array[i];
```

```
    }
```

```
    cout<<"updated is array"<<endl;
```

```
    for(int i=1;i<=size-1;i++){
```

```
        cout<<array[i]<<endl;
```

```
}
```

```
}
```

Output:



```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS C:\Users\mithaw\c program> g++ 5.cpp
PS C:\Users\mithaw\c program> ./a.exe
enter the size of array
3
enter array
78
79
80
updated is array
79
80
PS C:\Users\mithaw\c program> █
```

[B] Deleting element at end

```
#include<iostream>
```

```
using namespace std;
```

```
int main(){
```

```
    int array[50];
```

```
    int size;
```

```
    cout<<"enter the size of array"<<endl;
```

```
    cin>>size;
```

```
    cout<<"enter array"<<endl;
```

```
    for(int i=0;i<size;i++){
```

```
        cin>>array[i];
```

```
    }
```

```

        cout<<"updated is array"<<endl;

        for(int i=0;i<size-1;i++){

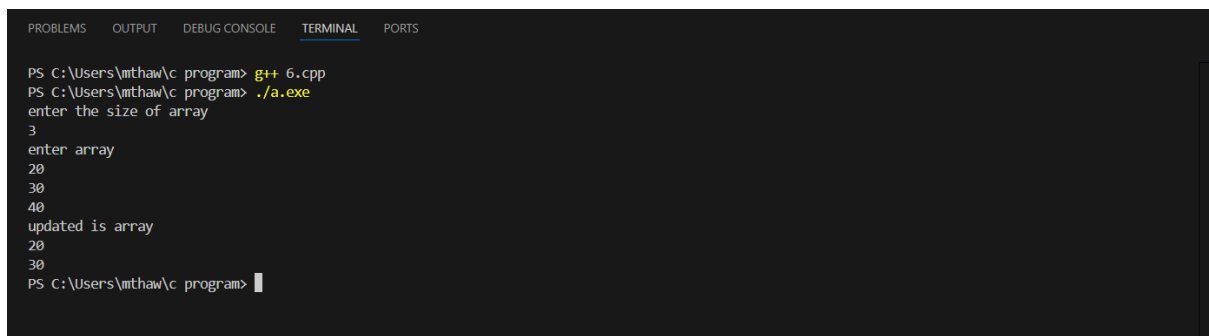
            cout<<array[i]<<endl;

        }

    }
}

```

Output:



```

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS
PS C:\Users\mthaw\c program> g++ 6.cpp
PS C:\Users\mthaw\c program> ./a.exe
enter the size of array
3
enter array
20
30
40
updated is array
20
30
PS C:\Users\mthaw\c program>

```

[B] Deleting element at any position

```

#include<iostream>

using namespace std;

int main(){

    int array[20];

    int size;

    cout<<"size of array is"<<endl;

    cin>>size;

    int pos;

    cout<<"enter position of element you want to delete"<<endl;

    cin>>pos;

```


```

    cout<<"enter array"<<endl;
    for(int i=0;i<size;i++){
        cin>>array[i];
    }

    for(int i=pos;i<size-1;i++){
        array[i]=array[i+1];
    }
    for(int i=0;i<size-1;i++){
        cout<<array[i]<<" ";
    }
}

```

Output:



```

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS
PS C:\Users\mithaw\c program> g++ 4.cpp
PS C:\Users\mithaw\c program> ./a.exe
size of array is
3
enter position of element you want to delete
2
enter array
55
44
66
55 44
PS C:\Users\mithaw\c program>

```

Github link : <https://github.com/MayurThaware122/DSA>

