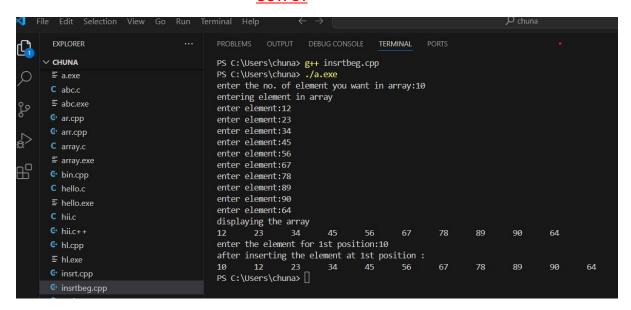**AIM :** Create an array of size n and write a program to insert an element (begining, end and specific position).

PROGRAM: **(BEGGING)**

```cpp
# include <iostream>

using namespace std;

int main()

{

    int ar[100],n,i,num;

    cout<<"enter the no. of element you want in array:";

    cin>>n;

    cout<<"entering element in array \n";


    for(i=0;i<n;i++)

    {

        cout<<"enter element:";

        cin>>ar[i];

    }

    cout<<"displaying the array\n";


    for(i=0;i<n;i++)

    {

        cout<<ar[i]<<"\t";

    }


    // to insert element at the begining


    int pos=0;

    for(i=n;i>=0;i--)

    {

        ar[i+1]=ar[i];

    }
```

```
    n++;

    cout<<"\nenter the element for 1st position:";

    cin>>num;

    ar[pos]=num;

    cout<<"after inserting the element at 1st position :\n";

    for(i=0;i<n;i++)

    {

        cout<<ar[i]<<"\t";

    }
}
```

OUTPUT

PROGRAM: (END)

```
# include <iostream>

using namespace std;

int main()

{

    int ar[100],i,n,num;

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

    cin>>n;
```

```cpp
// entering element in the array

for(i=0;i<n;i++)

{

    cout<<"enter "<<i+1<<" element:";

    cin>>ar[i];

}

cout<<"your array is \n";

for(i=0;i<n;i++)

{

    cout<<ar[i]<<" ";

}

cout<<"\nenter the element you want at the end:";

cin>>num;

ar[n]=num;

cout<<"after inserting the element at the end array becomes\n";

n++;

for(i=0;i<n;i++)

{

    cout<<ar[i]<<" ";

}

}
```

OUTPUT

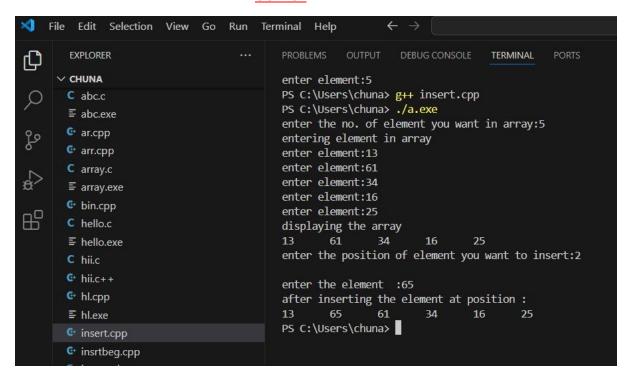**PROGRAM:**   **(AT ANY POSITION)**

```cpp
# include <iostream>
using namespace std;
int main()
{
    int ar[100],n,i,num;
    cout<<"enter the no. of element you want in array:";
    cin>>n;
    cout<<"entering element in array \n";

    for(i=0;i<n;i++)
    {
        cout<<"enter element:";
        cin>>ar[i];
    }
    cout<<"displaying the array\n";

    for(i=0;i<n;i++)
    {
        cout<<ar[i]<<"\t";
    }

    // to insert element at specific location

    int pos;
    cout<<"\nenter the position of element you want to insert:";
    cin>>pos;
    for(i=n;i>=0;i--)
    {
        ar[i+1]=ar[i];
    }
```

```
    n++;

    cout<<"\nenter the element  :";

    cin>>num;

    ar[pos-1 ]=num;

    cout<<"after inserting the element at position :\n";

    for(i=0;i<n;i++)

    {

        cout<<ar[i]<<"\t";

    }

}
```

OUTPUT

PROGRAM: **(DELETION AT BEGINING)**
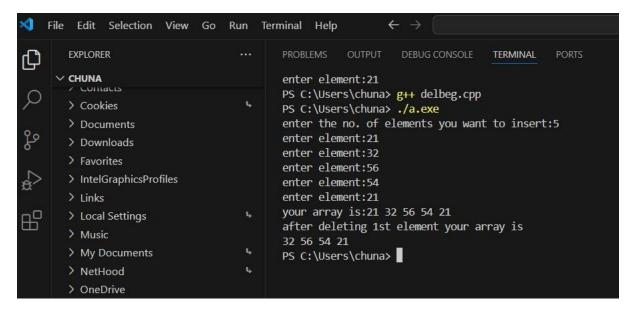
```
# include <iostream>

using namespace std;

int main()

{

    int ar[100],n,i;
```

```cpp
cout<<"enter the no. of elements you want to insert:";

cin>>n;


for(i=0;i<n;i++)

{

  cout<< "enter element:";

  cin>>ar[i];

}


cout<<"your array is:";

for(i=0;i<n;i++)

{

  cout<<ar[i]<<" ";

}


int pos=0;


for(i=0;i<n-1;i++)

 {

   ar[i]=ar[i+1];

}

n--;

cout<<"\nafter deleting 1st element your array is\n";


for(i=0;i<n;i++)

 {

  cout<<ar[i]<<" ";

 }


}
```

OUTPUT

PROGRAM: (DELETION AT END)

```cpp
# include <iostream>
using namespace std;
int main()
{
    int ar[100],n,i;
    cout<<"enter the no. of elements you want to insert:";
    cin>>n;

    for(i=0;i<n;i++)
    {
      cout<< "enter element:";
      cin>>ar[i];
    }

cout<<"your array is:";
    for(i=0;i<n;i++)
    {
```

```
    cout<<ar[i]<<" ";

  }



  n--;

  cout<<"\nafter deleting elemnet your array is\n";



  for(i=0;i<n;i++)

   {

    cout<<ar[i]<<" ";

   }



}
```

OUTPUT

PROGRAM: **(DELETION AT ANY POSITION)**
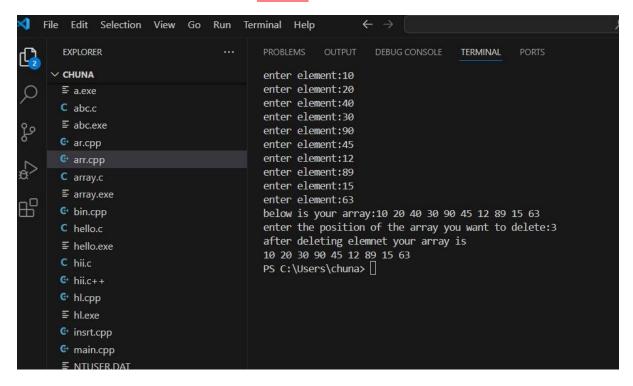
```
# include <iostream>

using namespace std;

int main()

{

  int ar[100],n,i;

  cout<<"enter the no. of elements you want to insert:";

  cin>>n;
```

```
    for(i=0;i<n;i++)

    {

      cout<< "enter element:";

      cin>>ar[i];

    }


cout<<"below is your array:";

    for(i=0;i<n;i++)

    {

      cout<<ar[i]<<" ";

    }


    int pos;

    cout<<"\nenter the position of the array you want to delete:";

    cin>>pos;

    int p;

    p=pos+1;


    for(i=pos-1;i<n-1;i++)

    {

      ar[i]=ar[i+1];

    }

    n--;

    cout<<"after deleting elemnet your array is\n";


    for(i=0;i<n;i++)

    {

      cout<<ar[i]<<" ";

    }
```

}

OUTPUT

GITHUB LINK GOR PRACTICAL:

 https://github.com/Nishikant-Chunarkar/DATA_STRUCTURE_PRACTICAL