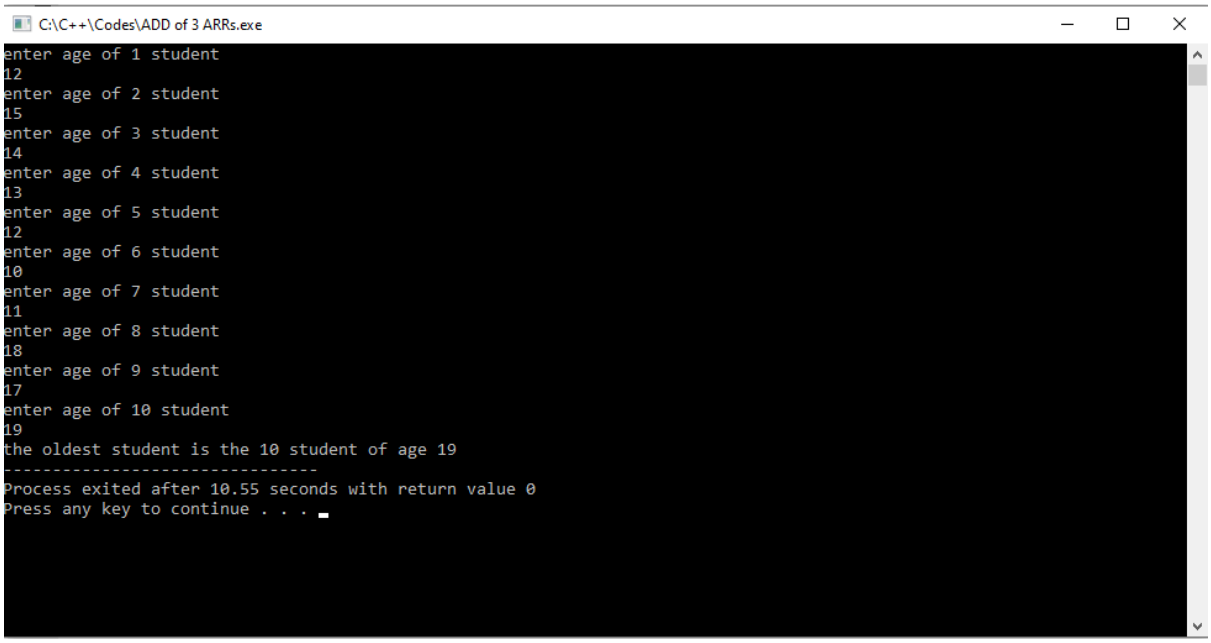
Q1 Write down a program in C++ that take an age of 10 students as an input from user and display the largest age of the student from an array.

```
#include <iostream>
using namespace std;
int main(){
	label:
	int lar=0,ind;

	int agearr[10];
	for(int i=0;i<10;i++){
		cout<<"enter age of "<<i+1<<" student"<<endl;
		cin>>agearr[i];
		if(agearr[i]<0){
			cout<<"Age cannot be negative. reinput all ages "<<endl;
			goto label;
		}
	if(lar<agearr[i]){
	lar=agearr[i];
	ind=i+1;
	}

	}
	cout<<"the oldest student is the "<<ind<<" student"<<" of age "<<lar;
}
```

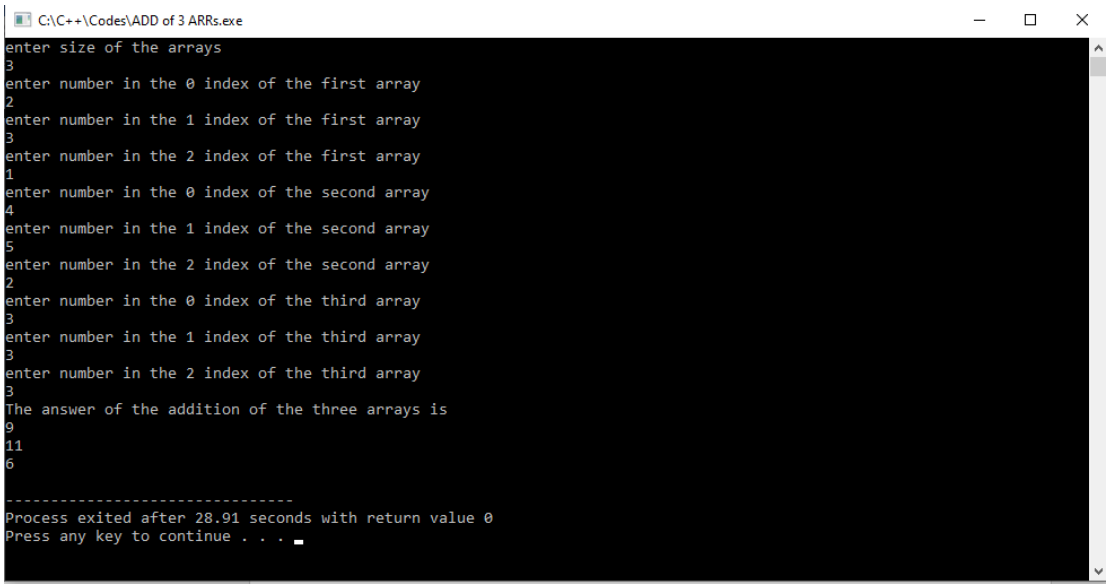


Q2 Write down a program in C++ that take an input data from user in three different arrays and then add the arrays and store them in another array. (Through Dynamic array concept).

```
#include <iostream>
using namespace std;
int main(){
	int i,sor,a=0;
	cout<<"enter size of the arrays"<<endl;
	cin>>sor;
	int *dyarr=new int(sor);
		int *dyarr2=new int(sor);
		int *dyarr3=new int(sor);
			int *dyarrans=new int(sor);
	for(int i=0;i<sor;i++){

		if(a==0){
			cout<<"enter number in the "<<i<<" index of the first array"<<endl;
			cin>>dyarr[i];
```

```
}
else if(a==1){
        cout<<"enter number in the "<<i<<" index of the second array"<<endl;
    cin>>dyarr2[i];
}
else if(a==2){
        cout<<"enter number in the "<<i<<" index of the third array"<<endl;
cin>>dyarr3[i];
}
else{
    break;  }
if(i==sor-1){
    a++;
    i=-1;
```




```
}}
cout<<"The answer of the addition of the three arrays is "<<endl;
for(int i=0;i<sor;i++){
    dyarrans[i]=dyarr[i]+dyarr2[i]+dyarr3[i];
cout<<dyarrans[i]<< endl;
}       }
```

Q3 Write a program for linear search using the concept of dynamic array (Note: Program should handle the situation if item is not in the list)

```
#include <iostream>
using namespace std;
int main(){
	int i,sor,a=0;
	cout<<"enter size of array"<<endl;
	cin>>sor;
	int *dyarr=new int(sor);
	cout<<"Enter "<<sor<<" items"<<endl;
	for(i=0;i<sor;i++){
	cin>>dyarr[i];

	}
		for(i=0;i<sor;i++){
			cout<<"You entered: "<<dyarr[i]<<endl;
			}
	int check;
	cout<<"Enter what number to check for"<<endl;
	cin>>check;

	for(i=0;i<sor;i++){
		if(check==dyarr[i])
		{
			cout<<check<<" exists in the array and exists at "<<i<<" index"<<endl;
			a++;
```

```
}


}
if(a==0){
cout<<check<<" does not exist in the array "<<endl;
}
}
```