

Array of objects

```
#include<iostream>
using namespace std;
class Employee
{
int id;
char name[25];
int age;
long salary;
public:
void getdata()
{
cout<<"\n\t enter employee id";cin>>id;
cout<<"\n\t enter employee namw";cin>>name;
cout<<"\n\t enter employee age";cin>>age;
cout<<"\n\t enter employee salary";cin>>salary;
}
void putdata()
{
cout<<"\n"<<id<<"\t"<<name<<"\t"<<age<<"\t"<<salary;
}
};
int main()
{
int i;
Employee E[3];
for( i=0;i<3;i++)
{
cout<<"\n enter details of"<<i+1<<"\t"<<"Employee";
E[i].getdata();
}
cout<<"\n details of employees";
for(i=0;i<3;i++)
E[i].putdata();
}
```

```
os@os-HP-Compaq-dc7900-Small-Form-Factor:~$ g++ arr.cpp
os@os-HP-Compaq-dc7900-Small-Form-Factor:~$ ./a.out

enter details of1      Employee
enter employee id107

enter employee namwshreya

enter employee age23

enter employee salary45000

enter details of2      Employee
enter employee id108

enter employee namw nita

enter employee age 21

enter employee salary78000

enter details of3      Employee
enter employee id 109

enter employee namwpriya

enter employee age25

enter employee salary54000

details of employees
107 shreya 23 45000
108 nita 21 78000
109 priya 25 54000os@os-HP-Compaq-dc7900-Small-Form-Factor:~$
```

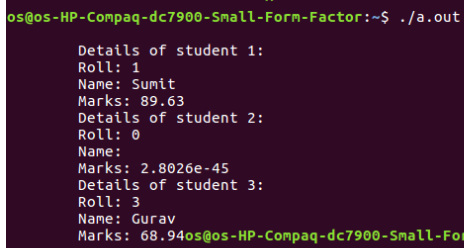
THIS POINTER

```
#include<iostream>
#include<string.h>
using namespace std;
class student
{
    int Roll;
    char Name[25];
    float Marks;

public:
    student(int R,float Mks,char Nm[])
    {
        Roll=R;
        strcpy(Name,Nm);
        Marks=Mks;
    }
    student(char Name[],float Marks,int Roll)
    {
        Roll=Roll;
        strcpy(Name,Name);
        Marks=Marks;
    }
    student(int Roll,char Name[],float Marks)
    {
        this-> Roll=Roll;
        strcpy(this->Name,Name);
        this-> Marks=Marks;
    }
    void display()
    {
        cout<<"\n\tRoll: "<<Roll;
        cout<<"\n\tName: "<<Name;
        cout<<"\n\tMarks: "<<Marks;
    }
};
int main()
{
    student S1(1,89.63,"Sumit");
    student S2("Kumar",78.53,2);
    student S3(3,"Gurav",68.94);

    cout<<"\n\tDetails of student 1: ";
    S1.display();
    cout<<"\n\tDetails of student 2: ";
    S2.display();
    cout<<"\n\tDetails of student 3: ";
    S3.display();
}
```

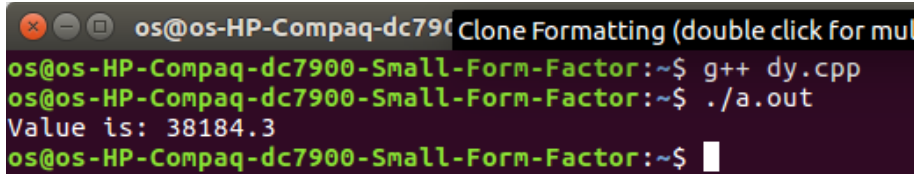
```
return 0;
}
```

A terminal window with a dark purple background. The prompt is 'os@os-HP-Compaq-dc7900-Small-Form-Factor:~\$'. The command './a.out' has been executed, resulting in the following output: 'Details of student 1:', 'Roll: 1', 'Name: Sumit', 'Marks: 89.63', 'Details of student 2:', 'Roll: 0', 'Name:', 'Marks: 2.8026e-45', 'Details of student 3:', 'Roll: 3', 'Name: Gurav', 'Marks: 68.94'. The prompt is now 'os@os-HP-Compaq-dc7900-Small-Form-Factor:~\$' with a cursor.

```
os@os-HP-Compaq-dc7900-Small-Form-Factor:~$ ./a.out
Details of student 1:
Roll: 1
Name: Sumit
Marks: 89.63
Details of student 2:
Roll: 0
Name:
Marks: 2.8026e-45
Details of student 3:
Roll: 3
Name: Gurav
Marks: 68.94os@os-HP-Compaq-dc7900-Small-Form-Factor:~$
```

Dynamic allocation operators

```
#include<iostream>
using namespace std;
int main()
{
double* val=NULL;
val=new double;
*val=38184.26;
cout<<"Value is: "<<*val<<endl;
delete val;
return 0;
}
```

A terminal window with a dark purple background. The prompt is 'os@os-HP-Compaq-dc7900-Small-Form-Factor:~\$'. The command 'g++ dy.cpp' has been executed, followed by './a.out'. The output is 'Value is: 38184.3'. The prompt is now 'os@os-HP-Compaq-dc7900-Small-Form-Factor:~\$' with a cursor.

```
os@os-HP-Compaq-dc7900-Small-Form-Factor:~$ g++ dy.cpp
os@os-HP-Compaq-dc7900-Small-Form-Factor:~$ ./a.out
Value is: 38184.3
os@os-HP-Compaq-dc7900-Small-Form-Factor:~$
```