

```
#include<iostream>
```

```
#include<conio.h>
```

```
int i=10; //global variable
```

```
static int j = 20; //global static variable
```

```
class Demo
```

```
{
```

```
public:
```

```
int c; //data member
```

```
static int d; //static data member
```

```
public:
```

```
void fun() //non - static function both static and non-static data
```

```
members accessible
```

```
{
```

```
this->c = 60;
```

```
std::cout<<"non-static data member - "<<c<<std::endl<<"static data member - "  
"<<d<<std::endl;
```

```
}
```

```
static void gun()
```

```
{
```

```
static int a = 100;
```

```
std::cout<<"Local static - "<<a<<std::endl;
```

```
a++;
```

```
std::cout<<"Static data member - "<<d<<std::endl;
```

```
}
```

```
};
```

```
int Demo::d=100;                //static variable initialization
```

```
int main()
```

```
{
```

```
    int a = 30;                //local variable
```

```
    static int b = 40; //local static acceptable in C++ not in JAVA
```

```
    std::cout<<a<<std::endl<<b<<std::endl;
```

```
    std::cout<<std::endl;
```

```
    Demo d;
```

```
    d.fun();
```

```
    std::cout<<std::endl;
```

```
    Demo::gun();
```

```
    std::cout<<std::endl;
```

```
    Demo::gun();
```

```
    std::cout<<std::endl;
```

```
    Demo::gun();
```

```
    std::cout<<std::endl;
```

```
    std::cout<<std::endl<<std::endl;
```

```
    Demo d1;
```

```
    d1.c=10;
```

```
    std::cout<<"Non-static "<<d1.c<<std::endl<<"Static "<<d1.d<<std::endl;
```

```
    Demo d2;
```

```
d1.c=20;
std::cout<<"Non-static "<<d1.c<<std::endl<<"Static "<<d1.d<<std::endl;
```

```
Demo d3;
d1.c=30;
std::cout<<"Non-static "<<d1.c<<std::endl<<"Static "<<d1.d<<std::endl;
```

```
std::cout<<std::endl<<std::endl<<"After changing values"<<std::endl;
(d1.c)++;
(d1.d)++;
```

```
d1.c=10;
std::cout<<"Non-static "<<d1.c<<std::endl<<"Static "<<d1.d<<std::endl;
d1.c=20;
std::cout<<"Non-static "<<d1.c<<std::endl<<"Static "<<d1.d<<std::endl;
d1.c=30;
std::cout<<"Non-static "<<d1.c<<std::endl<<"Static "<<d1.d<<std::endl;
std::cout<<std::endl<<std::endl;
```

```
getch();
return 0;
```

```
}
```

```
/*
```

30

40

non-static data member - 60

static data member - 100

Local static - 100

Static data member - 100

Local static - 101

Static data member - 100

Local static - 102

Static data member - 100

Non-static 10

Static 100

Non-static 20

Static 100

Non-static 30

Static 100

After changing values

Non-static 10

Static 101

Non-static 20

Static 101

Non-static 30

Static 101

\*/