

Serialization

- Serialization is a process of string and retrieving state of an object
- Class must have a default constructor

```
class Student
{
private:
    string name;
    int roll;
    string branch;
public:
    Student(){}
    Student(string n,int r,string b)
    {
        name=n;
        roll=r;
        branch=b;
    }
    friend ostream & operator<<(ostream &ofs,Student s);
    friend istream & operator>>(istream &ifs,Student &s);
    friend ostream & operator<<(ostream &os,Student &s);
};

ostream & operator<<(ostream &ofs,Student s)
{
    ofs<<s.name<<endl;
    ofs<<s.roll<<endl;
    ofs<<s.branch<<endl;
    return ofs;
}

istream & operator>>(istream &ifs,Student &s)
{
    ifs>>s.name;
    ifs>>s.roll;
    ifs>>s.branch;
    return ifs;
}

ostream & operator<<(ostream &os,Student &s)
{
    os<<"Name "<<s.name<<endl;
    os<<"Roll "<<s.roll<<endl;
    os<<"Branch "<<s.branch<<endl;
    return os;
}

int main()
{
    ofstream ofs("Test.txt");
    Student s1("John",10,"CS");
    ofs<<s1;
    ofs.close();
    Student s2;
    ifstream ifs("Test.txt");
    ifs>>s1;
    cout<<s1;
}
```