Connor Perron
BCS426
Prof. Aydin
Spring 2021

```csharp
    0 references
    public void NewStudentArrived(object sender, StudentArrived e) =>
        Console.WriteLine($"{_name}: student {e.Student} is new");
}

4 references
public class StudentArrived : EventArgs
{
    1 reference
    public StudentArrived(Student student) => Student = student;
    2 references
    public Student Student { get; }
}

2 references
public class Registrar
{
    private Student[] _studentList;
    public event EventHandler<StudentArrived> NewStudentInfo;
    private static int numberOfStudents = 0;

    1 reference
    public Registrar(Student[] studentList)
    {
        _studentList = studentList;
    }

    3 references
    public void NewStudent(Student student)
    {
        student.Register();
        _studentList[numberOfStudents] = student;

        Console.WriteLine($"Registrar, new student {student}");

        NewStudentInfo?.Invoke(this, new StudentArrived(student));

        numberOfStudents++;


    }
}
```

```csharp
using System;
using System.Threading;

namespace Lab7
{
    // 6 references
    public enum Status { FRESHMAN, SOPHMORE, JUNIOR, SENIOR };
    // 14 references
    public class Student
    {
        private string _name;
        private DateTime _dateOfBirth;
        private string _major;
        private Status _status;
        private bool _registered;

        // 3 references
        public Student(string name, DateTime dateOfBirth, string major, Status status)
        {
            _name = name;
            _dateOfBirth = dateOfBirth;
            _major = major;
            _status = status;
            _registered = false;
        }

        // 0 references
        public string Name { get; set; }
        // 0 references
        public DateTime DateOfBirth { get; set; }
        // 0 references
        public string Major { get; set; }
        // 0 references
        public Status status { get; set; }
        // 0 references
        public bool Registered { get; set; }

        // 1 reference
        public void Register()
        {
            _registered = true;
        }

        // 0 references
        public override string ToString()
        {
            return "Student Name: "+_name+" \t Date of Birth: "+_dateOfBirth+ " \t Major: "+_major+" \t Status: "+_status+ " \t Registered: "+_registered;
```

```csharp
0 references
class Program
{
    0 references
    static void Main(string[] args)
    {
        Student[] studentList = new Student[100];
        var registrar = new Registrar(studentList);
        Random rnd = new Random();


        var dob = new DateTime(2001, 7, 11);
        Student s1 = new Student("Connor Perron", dob, "CPIS", Status.JUNIOR);

        dob = new DateTime(2002, 10, 10);
        Student s2 = new Student("Student Person", dob, "Liberal Arts", Status.FRESHMAN);

        dob = new DateTime(2001, 11, 13);
        Student s3 = new Student("Name Nameson",dob, "Dentistry", Status.SOPHMORE);



        Console.WriteLine(s1);
        registrar.NewStudent(s1);
        Thread.Sleep(rnd.Next(100, 3000));

        Console.WriteLine(s2);
        registrar.NewStudent(s2);
        Thread.Sleep(rnd.Next(100, 3000));

        Console.WriteLine(s2);
        registrar.NewStudent(s3);


    }
}
```

```
Microsoft Visual Studio Debug Console
Student Name: Connor Perron     Date of Birth: 7/11/2001 12:00:00 AM   Major: CPIS     Status: JUNIOR          Registered: False
Registrar, new student Student Name: Connor Perron      Date of Birth: 7/11/2001 12:00:00 AM   Major: CPIS     Status: JUNIOR          Registered: True
Student Name: Student Person     Date of Birth: 10/10/2002 12:00:00 AM   Major: Liberal Arts     Status: FRESHMAN     Registered: False
Registrar, new student Student Name: Student Person      Date of Birth: 10/10/2002 12:00:00 AM   Major: Liberal Arts     Status: FRESHMAN          Registered: True
Student Name: Student Person     Date of Birth: 10/10/2002 12:00:00 AM   Major: Liberal Arts     Status: FRESHMAN     Registered: True
Registrar, new student Student Name: Name Nameson       Date of Birth: 11/13/2001 12:00:00 AM   Major: Dentistry     Status: SOPHMORE
Registered: True

C:\Users\Connor\source\repos\Lab7\Lab7\bin\Debug\netcoreapp3.1\Lab7.exe (process 10496) exited with code 0.
Press any key to close this window . . .
```