Arrays of Objects

- So far we’ve only discussed arrays used to hold primitive data (int or double)
- An array can also be used for Object data
- The key difference is that an array of objects actually contains the reference to the objects in the array, not the actual objects themselves
Example – Watchung Hills Students

- Assume there is a Student class that includes a constructor to create Student objects with an ID number and GPA

```java
public class Student{

    private int id;
    private double gpa;

    public Student(int idnum, double gpanum)
    {
        id = idnum;
        gpa = gpanum;
    }
}
```
Example – Watchung Hills Students

- You can create an array to hold all of the Student object at Watchung Hills
- Create enough slots to hold all of our students

```java
Student[] = wh; //array declaration
wh = new Student[4000]; //create slots
```
Example – Watchung Hills Students

- What does the statement do in terms of reserving space in memory?

```java
Student[] = wh; //array declaration
```

- Reserves memory space for the reference variable `wh`
What does this statement do in terms of reserving space in memory?

wh = new Student[4000]; //create slots

Creates 4000 reference variables

Have any Student objects been created in memory?

Students have not yet been instantiated so no memory space has been allocated for them yet