

## (1)Overview

- Quick recap exercise
- Finish up array doubling
  - Generalize idea of returning dynamic arrays
- Pointers to structs

## (2) Pointers to Structs pt. 0

Pointer variable is described by the type that it points to:

```
int * aptr;
```

```
data_type * pointer_name;
```

So far only used with fundamental type (int, double, string)

We can declare pointers to user-defined types.

e.g. struct:

```
struct Student{  
    string name;  
    int age;  
};
```

```
int main(){  
    Student s0, s1;  
  
    ...  
}
```

### (3) Pointers to Structs pt. 1

```
//What if we want to dynamically allocate a struct instance?  
Student *s0;  
s0 = new Student;
```

```
// OR in one line:
```

Now let's create a list of students, by placing each student in a dynamically allocated "node".

*See next page:*

## (4) Pointers to Structs pt. 2

```
struct Student{  
    string name;  
    int age;  
    Student * next; //!!!  
};  
int main(){  
  
    Student * s0, * s1;  
  
    return 0;  
}
```

