

CSC209 Week 6 Notes

Hyungmo Gu

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Struct 1 of 3

- Introducing Structs

- **struct/structures** is like dictionary in Python or object in Javascript
- there are differences between array and structure

	array	structure
data of same type	yes	not required
declaration details	type and number of elements (array [] notation)	types of members (struct keyword)
access via ...	index notation	dot notation

- items in struct is called **member**
- items in array is called **element**

```
1  #include <stdio.h>
2  #include <string.h>
3
4  int main() {
5      struct student {
6          char first_name[20];
7          char last_name[20];
8          int year;
9          float gpa;
10     };
11
12     struct student good_student;
```

```
13
14     strcpy(good_student.first_name, "Jo");
15     strcpy(good_student.last_name, "Smith");
16     good_student.year = 2;
17     good_student.gpa = 3.2;
18
19     printf("Name: %s %s\n", good_student.first_name, good_student.
last_name);
20     printf("Year %d. GPA %.2f\n", good_student.year, good_student.
gpa);
21
22     return 0;
23 }
24
```

Listing 1: struct_example_1.c