

CS 161, Lecture n-1: Structs and Objects

Objects

- The world is filled with them
- Often made of mixed types
- Examples:

Structs – Objects without functionality

- Structs are user defined types that have multiple types

```
struct book {  
    char* title;  
    char** authors;  
    int num_pages;  
};  
book text_book;  
text_book.num_pages = 500;
```

Use of Structs

- Can use the same way as any other type

```
book* bookshelf = new book[10];
```

```
for(int i=0; i<10; i++) {
```

```
    bookshelf[i].num_pages = 100;
```

```
    strcpy(bookshelf[i].title, "Place holder");
```

```
    bookshelf[i].authors = new char*[2];
```

```
    for(int j=0; j<2; j++)
```

```
        bookshelf[i].authors[j] = new char[256];
```

```
}
```

Demo