

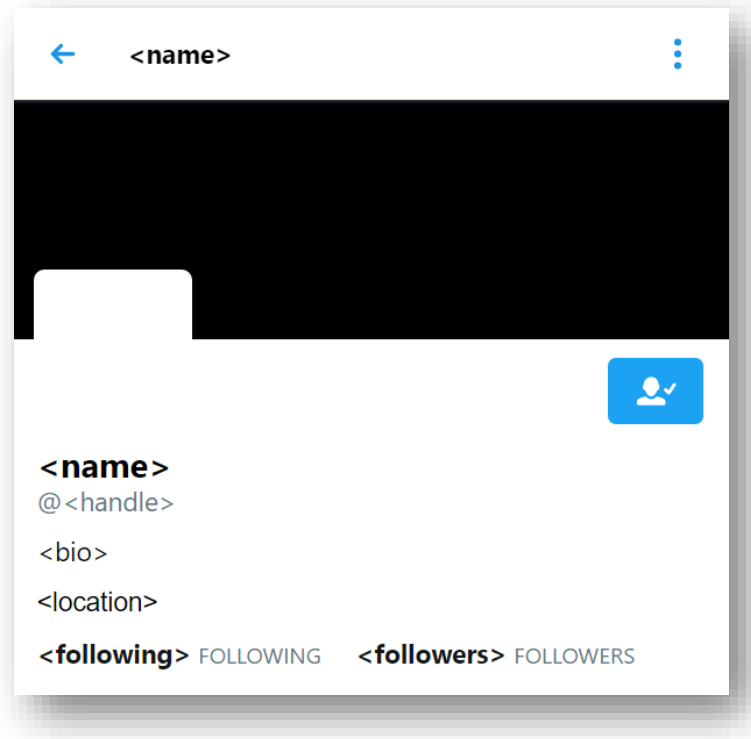
# **classes** and Objects

## A Conceptual Introduction

# You can define your own data types!

- A data type communicates a value's properties and capabilities
  - e.g.: If you have a value of type number, you know you can do arithmetic with it
  - So far, you've used built-in data types
- Often you'll need to "model" more complex concepts
  - Some real world examples: Twitter Profiles, Pizza Order, Basketball Player Stats
- You can define *composite data types* by combining other types
  - In chemistry where *compounds* are made of *atoms*...
  - number, string, and boolean are our atoms
  - Composite data types can be made up of other composite data types, too!
- A **class** is how you define a composite data type.
- A value whose data type is a composite is an **object**.

What is this?



A "Class"!

- Classes *aren't actually* visual templates.
- They're definitions of what a specific composite data type is.
- However, this is a useful analogy:

**Twitter Profile Template : @KrisJordan's Profile :: Class : Object**

← Carol Folt



**Carol Folt**  
@ChancellorFolt

11th Chancellor of The University of North Carolina at Chapel Hill.

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# What are these? Objects!

(They're all Twitter profiles.)

← Sarah Ganci



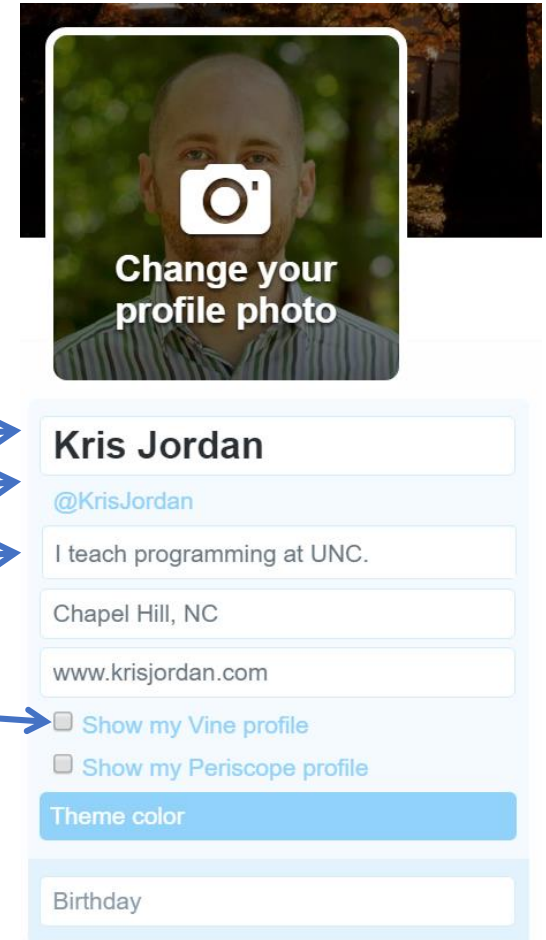
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# How would you model a TwitterProfile in code?

- The exact syntax will be covered in the next video.
- The big idea is you can "bundle" many related variables into a single data type.
- These variables are *properties* of the TwitterProfile class.

```
class TwitterProfile {  
    name: string = "";  
    handle: string = "";  
    bio: string = "";  
    showVine: boolean = true;  
    privateAccount: boolean = false;  
    followers: number = 0;  
    following: number = 0;  
}
```



# Each Object's properties are established by its Class

Each object's properties are like a bundle of variables. Notice each object has its own values for each property.

