

Classes
and Objects !

You can define your own data types!

- A data type communicates a value's attributes and capabilities
 - e.g.: If you have a value of type int, you know you can do arithmetic with it
 - So far, you've used built-in data types
- You will often need to **model** more complex concepts
 - Some real-world examples: Twitter Profiles, Pizza Order, Basketball Stats
- A **class** is how you define a custom composite data type.
- A value whose data type is a composite is an **object**.



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

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🏠 US House candidate, NY-14

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📍 Bronx + Queens, NYC 🌐 ocasiocortez.com
📅 Joined April 2010

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← **Kris Jordan** ⋮



Kris Jordan
@KrisJordan

I teach programming at UNC.

Chapel Hill, NC · krisjordan.com

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Objects!

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How would you model a TwitterProfile in code?

- The exact syntax will be covered next.
- The idea is you can group many related variables into a single data type.
- These variables are *attributes* of the TwitterProfile class.

```
class TwitterProfile:
```

```
    name: str
```

```
    handle: str
```

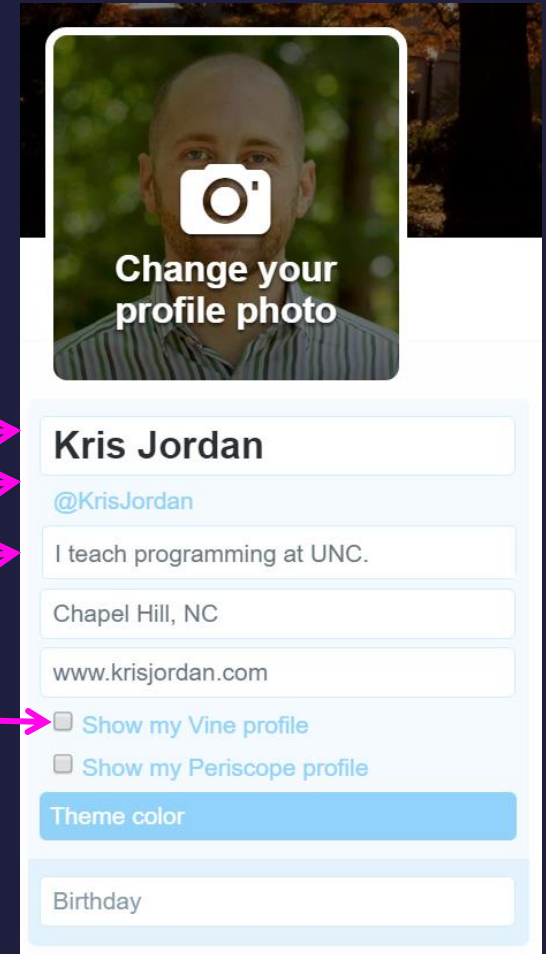
```
    bio: str
```

```
    show_vine: bool
```

```
    is_private: bool
```

```
    followers: int
```

```
    following: int
```



Each Object's attributes 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.

