

# Philosophy of Complex Objects

Let's imagine some information concerning a student:

① First Name (str)

② Last Name (str)

③ Student ID (int)

④ Address → List  
[908, "Promenade lae",  
"Williamsburg", "VA",  
23185]

⑤ Grades → dict

{ "HW": 94.2, "Quiz": 75.8,  
"Tests": 88.4, "Final": 71.2 }

Student-info = [firstname, lastname,  
student-id, address, grades]

Print(student-info)

1  
print(student\_info[4]['hw'])  
→ 94.2

→ student\_info is a complex assembly of information, of many different types.

→ Let's call this an "object"

→ In fact, everything could be called an object

→ int, float, string, boolean

→ lists, dicts

→ lists of lists

→ lists of dicts

→ dicts of lists, ...

→ Main Point: It would be

nice to have a system to define objects in our own way, and how we interact with

also define  
those objects.

---

This is what classes, and  
object-oriented programming is  
all about!! 😊