CS 160
CS Orientation

More Functions

Decomposition

- What is decomposition?

- What are functions?

- Examples of daily life functions???

As a class, let's define functions…

- For all the employees in our company, calculate their gross pay based on their hours and pay rate.

- Create a function to get number of employees.
- What if you want to make sure this function only returns a valid integer?
- Create function called gross_pay that takes the number of employees and calculates gross pay for each.
- Create a main function where the program begins.

Designing Functions...

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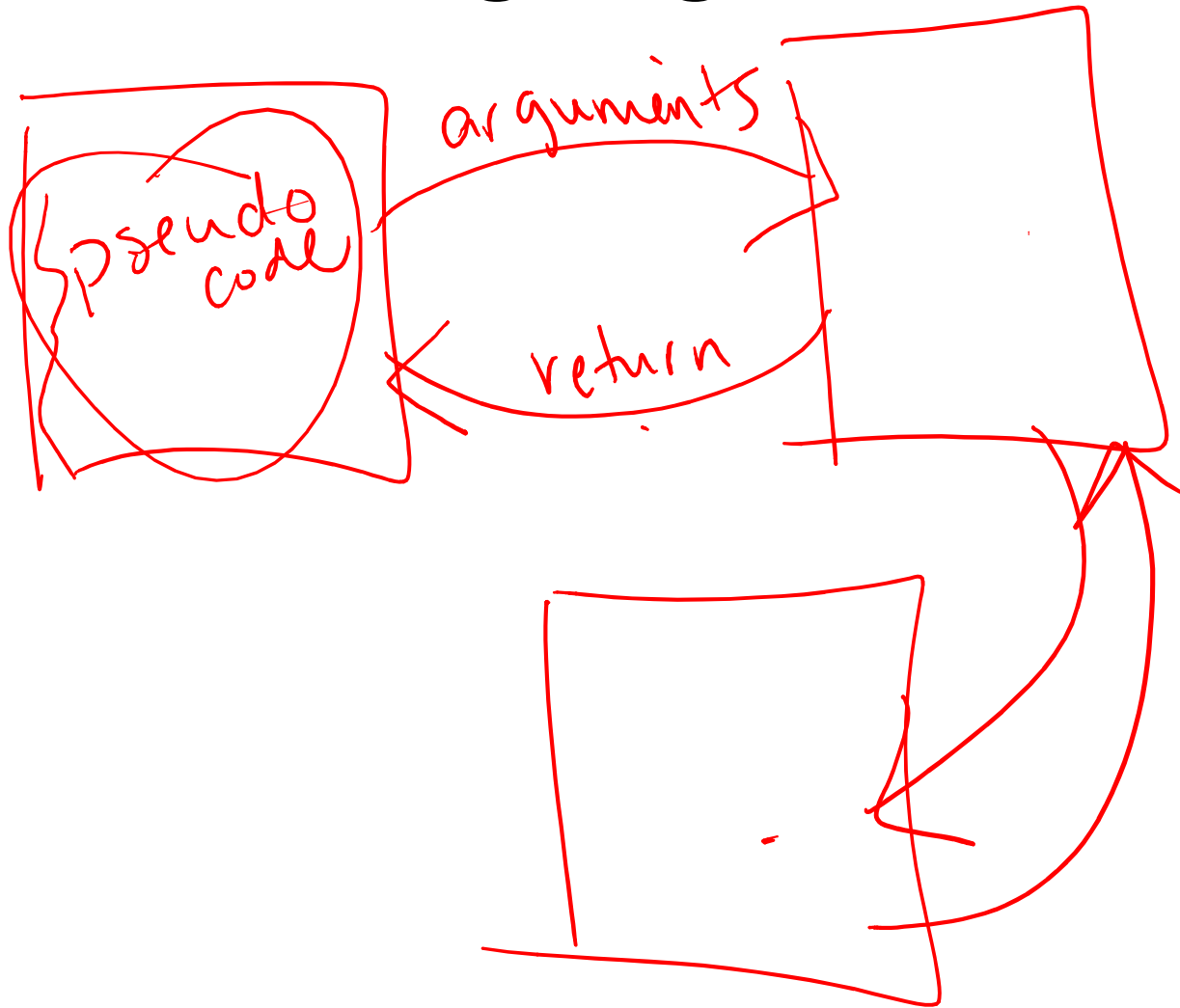
```
 1 def main():
 2     num=getEmployees() #can call getEmployees and return to local variable
 3     print(id(num)) #print id of local num
 4     calculate(num)
 5     #calculate(getEmployees()) #can pass number returned directly to calculate
 6
 7 def getEmployees():
 8     employeeNum = int(input("what is the number of employees: "))
 9     #calculate(employeeNum) #maybe not good to have getEmployees() also calculate
10     return employeeNum
11
12 def calculate(num):
13     print(id(num))  #print id of local num
14     for x in range(num):
15         num1 = float(input("for employee number " +str( x+1)+" how much do they get payed: "))
16         num2 = float(input("for employee number " +str(x+1)+" what is there hours: "))
17         print("the pay for employee number "+str(x+1)+" is " +str(num2*num1))
18
19 main()
20
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~
                                                           6,0-1              All
```

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