CS 160 CS Orientation

Functions and Lists

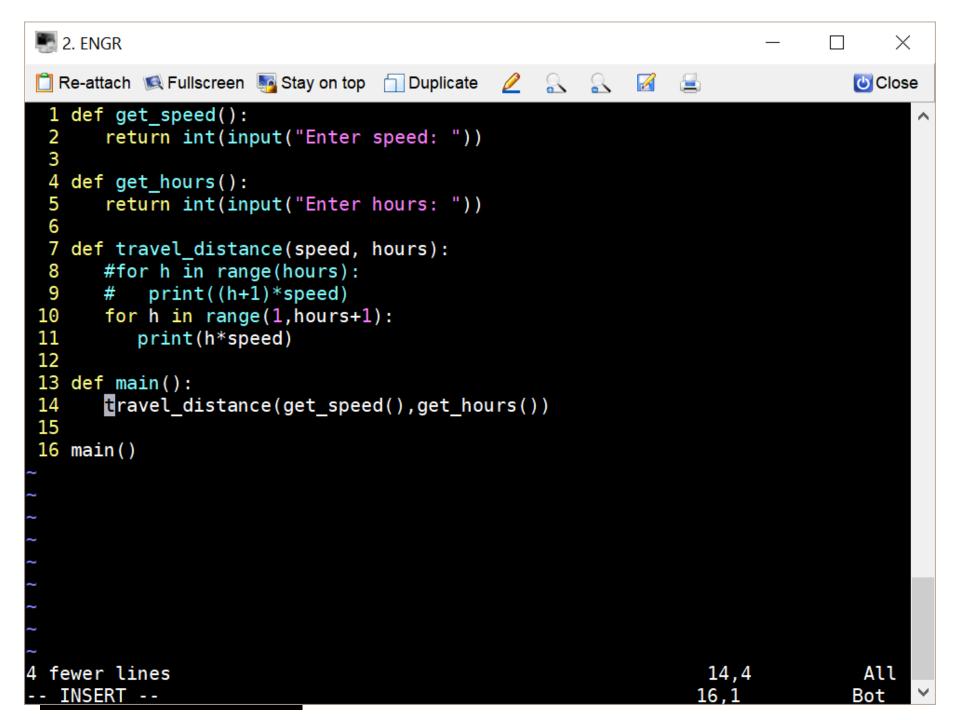


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<pre>1 def main(): 2 num=getEmployees() #can call getEmployees and return to local variable 3 print(num); 4 print(id(num)) #print id of local num 5 #num+=1 #num=num+1 6 #print(id(num)) #print id of local num 7 calculate(num) 8 print(num); #value of num does not change after function call 9 print(id(num)) #print id of local num 10 #calculate(getEmployees()) #can pass number returned directly to calculate 11 12 def getEmployees():</pre>			^
<pre>13 employeeNum = int(input("what is the number of employees: ")) 14 #calculate(employeeNum) #maybe not good to have getEmployees() also calcula 15 return employeeNum 16 17 def calculate(num):</pre>	te		
<pre>18 print(id(num)) #print id of local num 19 num=3 20 print(id(num)) #print id of local num 21 for x in range(num):</pre>			
<pre>22 num1 = float(input("for employee number " +str(x+1)+" how much do they 23 num2 = float(input("for employee number " +str(x+1)+" what is there hour 24 print("the pay for employee number "+str(x+1)+" is " +str(num2*num1)) 25 26 main() 27 ~</pre>		yed: "))
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More practice loops/functions...

- Write a function with a nested loop that displays x rows of '#' with y '#'s on each row.
- Write a function that asks the user for the speed of a vehicle and how many hours it has been travelling. Write another function to print out how far the vehicle has gone each hour. Ask the user if they want to perform another calculation.



What if we want to store gross_pay information?

- What is a list vs. array?
- How do we make a list in python?



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 1 def get speed():
      return int(input("Enter speed: "))
 2
 3
 4
   def get hours():
 5
      return int(input("Enter hours: "))
 6
 7 #we can pass a list and change it in a function
   def get travel info(info):
 8
 9
       info.append(int(input("Enter speed: ")))
10
       info.append(int(input("Enter hours: ")))
11
12 def travel distance(speed, hours):
13
      #for h in range(hours):
14
          print((h+1)*speed)
      #
15
      for h in range(1,hours+1):
16
         print(h*speed)
17
18 def main():
19
      travel info=[] #create a list
20
      get travel info(travel info) #we can change a list in a funciton
21
      travel distance(travel info[0],travel info[1]) #pass list elements
      #travel distance(get_speed(),get_hours())
22
23
24 main()
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