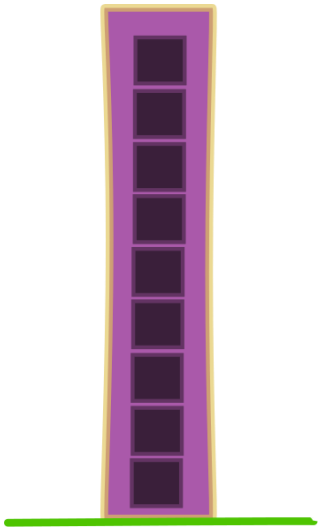
FOCUS LEARNING

Name:_____
Date:_____

Python Lists - Introduction

A Python list is a little like a building with different floors.

Each position in the list is like a floor of the building. We can access any floor using it's address, called an **index.**



```
pets = [3, 5, 1, 9, 0, 2]

print(pets[0])
print(pets[3])
print(pets)

pets[2] = 6
pets[5] = pets[5] + 3

print(len(pets))
print(pets)
```

Special things to note:

```
print(pets[8])
print(pets[-1])
```

Looping with Lists

```
#printing each item in the list
for appt in pets:
      print(appt)
```

```
#getting the total number of pets
total = 0
for appt in pets:
      total = total + appt
```

Challenge:

A. Using the code for the total number of pets, find the average number of pets per apartment.

B. Write code to find the apartment with the most number of pets. Hint: You will need to add a new variable.

More Advanced Looping with Lists

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```
#adding 2 pets to each apartment
num_apt = len(pets)
for appt_count in range(num_apt):
     pets[appt_count] = pets[appt_count] + 2
print(pets)
```

Challenge: **Pet Overload!** Multiply the number of pets in each apartment by 10.

```
#make a graph of the number of pets
count = 0
while count < len(pets):
     addr = str(count) #apartment number
     print(addr + " " + "X"*pets[count])
```

Adding to and Deleting From Lists

```
#adding apartments
pets.append(4) #this adds 4 to the end of the list
print(pets)

#remove apartments
pets.pop(5) #this removes item with index 5
print(pets)
pets.pop() #this removes the last element in the list
print(pets)
del pets[3] #this removes item with index 3
```

Challenge: **Woody's Wild Adventures** on repl.it.