**Pi2Go Simulator Programming: WS27 Sample Answers**

**Question 1:** It prints an empty list.

**Question 2:** It created an empy list/array called readings.

**Question 3:** It prints an empty list (same as when data1.print\_readings() was called).

**Question 4:** take\_readings()

**Question 5:** print\_readings()

**Question 6:** The answer will depend upon where boxes have been placed and how many readings have been taken, but it will be a list of floats.

**Question 7:** data2 = DataLogger()

**Question 8:** Each data logger only stores a reading when its own take\_readings() method is called. Therefore the two data loggers have different lists of readings because the objects were moved between taking readings with different loggers.

**Exercise 1:**

import simclient.simrobot as pi2go

class DataLogger:

def \_\_init\_\_(self):

self.right\_readings = []

self.left\_readings = []

def take\_irRight\_reading(self):

self.right\_readings.append(pi2go.irRight())

def take\_irLeft\_reading(self):

self.left\_readings.append(pi2go.irLeft())

def take\_reading(self):

self.right\_readings.append(pi2go.irRight())

self.left\_readings.append(pi2go.irLeft())

def print\_irRight\_log(self):

print(self.right\_readings)

def print\_irLeft\_log(self):

print(self.left\_readings)

def print\_readings(self):

print("Right Sensor:" + str(self.right\_readings))

print("Left Sensor:" + str(self.left\_readings))

**Exercise 2:**

import simclient.simrobot as pi2go

class DataLogger:

def \_\_init\_\_(self, name):

self.readings = []

self.logger\_name = name

def take\_reading(self):

self.readings.append(pi2go.getDistance())

def print\_readings(self):

print(self.readings)

def get\_name(self):

return self.logger\_name

def set\_name(self, name):

self.logger\_name = name

**Question 9:** The first logger prints its name as logger1 and the second as logger2. This is because they were given different names when initialised.



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