*Assignment 5 pseudocodes*

1. CLASS BirdSurveyLinkedList

BEGIN

private Node first

CLASS Node

BEGIN

String bird

Node next

int total

CONSTRUCTOR Node(String bird, node newNode, int total)

BEGIN

this.bird🡨bird

this.next🡨newNode

this.total🡨total

END CONSTRUCTOR

METHOD void setBird(String bird)

BEGIN

this.bird🡨bird

END METHOD

METHOD String getBird()

BEGIN

RETURN bird

END METHOD

METHOD int getTotal()

BEGIN

RETURN total

END METHOD

METHOD void setTotal(int total)

this.total🡨total

END METHOD

END CLASS

CONSTRUCTOR BirdSurveyLinkedList()

first🡨null

END CONSTRUCTOR

METHOD void add(String birdName)

BEGIN

IF(first==null) THEN

First🡨NEW Node(birdName ,null, 1)

ELSE

boolean found🡨false

Node curr🡨first

WHILE(curr!=null && !found)

IF(curr.bird.equals(birdName)) THEN

found🡨true

BREAK

ELSE

curr🡨curr.next

END IF

END WHILE

IF(found) THEN

curr.setTotal(curr.getTotal()+1)

ELSE

first🡨new node(birdName, first, 1)

END IF

END IF

END METHOD

METHOD int getTotal(String birdName)

BEGIN

Node curr🡨first

WHILE(curr!=null)

IF(curr.bird.equals(birdName))

RETURN curr.getTotal()

END IF

curr🡨curr.next

END WHILE

RETURN 0

END METHOD

METHOD void getReport()

BEGIN

Node curr🡨first

WHILE(curr!=null)

PRINT “Bird Name is ”+curr.getBird()+ “ and count is ”+curr.getTotal())

curr🡨curr.next

END WHILE

END METHOD

END CLASS

CLASS Main

BEGIN

METHOD main()

BEGIN

CREATE list AS BirdSurveyLinkedList

list🡨NEW BirdSurveyLinkedList

String birdName

READ user input for a bird name

PRINT “Enter a name of the bird (Enter NO if you don’t want to enter any birds): ”

birdName🡨 user input for the bird name

WHILE(!birdName.equals(“NO”))

list.add(birdName)

PRINT “Added” +birdName+ “ and there is now” +list.getTotal(birdName)+ “ of them”

PRINTLINE()

READ user input for the name of the bird

PRINT “Enter the name of another bird(write NO if you want to enter any other bird name): ”

birdName🡨user input for the bird name

END WHILE

PRINTLINE()

PRINT “Enter the name of the bird for which you want to get count (Enter NO if you don’t want the count of any birds ): ”

birdName🡨user input of the bird name

WHILE(!birdName.equals(“NO”))

PRINT “Counted ”+list.getTotal(birdName)+“ ”+birdName+“(s)”

PRINTLINE()

PRINT “Enter the name of the bird for which you want to get count (Enter NO when you don’t want the count of any other bird): ”

birdName🡨Read the user input for bird name

END WHILE

PRINTLINE()

PRINT “Report of all birds”

List.getReport()

END main

END CLASS