import java.util.ArrayList;

public class Farm2

{

private ArrayList<Animal> animals;

public Farm2()

{

animals = new ArrayList<Animal>();

}

/\*\*

\* add a new item and return the number of items

\* now stored

\* @param String aWord

\* @return int number of items

\*/

public int addToList(Animal aBeast)

{

animals.add(aBeast);

return animals.size();

}

/\*\*

\* get an item by its position in the list.

\* Check that it's a valid position, if it's

\* not then return an error message

\* @param int position in list

\* @return String animal name

\*/

public Animal getItem(int aNumber)

{

if(aNumber>=0 && aNumber<animals.size()){

return animals.get(aNumber);

}

else{

return null;

}

}

/\*\*

\* @return number of items

\*/

public int noOfItems()

{

return animals.size();

}

/\*\*

\* Remove an item at a given position

\* Check that it's a valid position. Return the

\* object removed or an error message

\* @param aNumber

\* @return animal or error

\*/

public Animal removeAtPosition(int aNumber)

{

if(aNumber>=0 && aNumber<animals.size()){

return animals.remove(aNumber);

}

else{

return null;

}

}

/\*\*

\* add an item at beginning of the list

\* @param name of animal

\* @return name of first animal in list

\*/

public Animal addFirst(Animal aBeast)

{

animals.add(0, aBeast);

return animals.get(0);

}

/\*\*

\* Find the the position of a given animal in the list.

\* @param aWord

\*/

public int searchForAnimal(Animal aBeast)

{

return animals.indexOf(aBeast);

}

/\*\*

\* Find and print animals whose name begins with a given letter

\* print message if none found.

\* @param String a letter

\*

\*/

public void itemsBeginWith(String aLetter)

{

boolean found = false;

for(Animal animal : animals) {

if(animal.getName().substring(0,1).equals(aLetter)) {

System.out.println(animal);

found = true;

}

}

if(!found){

System.out.println("None found");

}

}

/\*\*

\* Print the list

\*/

public void printAll()

{

for(Animal animal : animals) {

System.out.println(animal);

}

}

}