

World of Robots

Master 1 Génie Physiologique et Informatique

Synthesis of steps 3 and 4



```
document.getElementById(div).innerHTML += '<div>';
else if (i==2)
{
  var atpos=inputs[i].indexOf('@');
  var dotpos=inputs[i].lastIndexOf('.');
  if (atpos<1 || dotpos<atpos-1 || dotpos>atpos+1 || dotpos>atpos+2)
    document.getElementById('errFinal').innerHTML += '<div>';
  else
    document.getElementById(div).innerHTML += '<div>';
}
else if (i==5)
```

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The skills of these two stages:

⇒ aggregation and composition relationship

Composition: A so-called container class has an object of the so-called content class, and this object of the content class cannot exist without the container class.

Aggregation: The object of the content class can exist independently of the object of the container class. If you delete the container, the contents can still exist.

⇒ Using arrays, adding elements to this list and viewing its contents

In step 4, we learned to use arrays. To do that, we first need to create an attribute and initialize it with `new ArrayList<>`. After that, we can add information in the array with the `.add()` method or remove it with `.remove()`. We can also get the size of the array with `.size()` and find a specific element in the array with the `.get(index)` where index is the number representing the place of the element in his array. Considering that, we are able to create “for” loops and “while” loops to go through every element of the array.

In the enhanced notebook project, we used arrays of String and arrays of Note. For the notes to start at an index of 1, we added an empty note automatically in the constructor so it is more logical.

⇒ use of contains

In the Notebook project, we needed to be able to compare String. To be able to do this, we used the method `contains` already implemented in Java. It is used to determine whether a string or collection contains a specific substring or element, respectively.

⇒ string concatenation

We also learned how to concatenate strings and other type of attributes. It helped us to display every results we wanted by concatenating attributes and text.

⇒ loops for, while

During these two steps, we learned how to use the different types of for loop (for and for each) and also the while loop in the notebook project. When we used them, we learned how to correctly write them.

⇒ use of methods contained in other classes (`note.getDate()`)

Finally, we learned how to use methods from other classes, for example in the last project on the Club, we used the method `getMonth()` from the class `Membership` in the class `Club` to get the month number in the method `numberOfMembersInMonth()`. Another example in the Notebook project with `note.getDate()`.