Roars part 2 :

Receiving a roar from the app to the Internet

Note : for better undersanding of this lesson, the tutorial on JSON should be fresh in your mind

```
String roars = "https://roar.firebaseIO.com/listofroars.json";
```
The website where we will get the roars from

```
ConnectionRequest request = new ConnectionRequest();
request.setUrl(roars);
request.setPost(false);
request.setHttpMethod("GET");
request.setContentType("application/json");

NetworkManager.getInstance().addToQueueAndWait(request);
```
The object « ConnectionRequest » in the box « request », with all actions necessary to connect to the website above

```
ByteArrayInputStream allRoarsInBytes = new ByteArrayInputStream(request.getResponseData());
```
This line actually gets the data from the Internet

```
String responseInString = Util.readToString(allRoarsInBytes, "UTF-8");
```
Converting the data received to text

```
JSONObject allRoarsInJsonFormat = new JSONObject(responseInString);
```
Converting the text into a JSON object, which is is a list of roars

The JSON object we received looks like that (here, the example of receiving just 2 roars):

```
{"-JywLB4G8OErGN3dsI_c" :
        {"author":"seinecle",
        "roar":"This is an example of a roar"},
"-JywNGfPCEUDmGxJ3AXw" :
        {"author":"seinecle",
        "roar":"This is a test"},
}
```

```
JSONArray listOfRoarIds = allRoarsInJsonFormat.names();
```
Collecting all the names (or « titles ») of the roars.

So listOfRoarIds contains: `-JywLB4G8OErGN3dsI_c` and `-JywNGfPCEUDmGxJ3AXw`

```
Form wallScreen = this.getComponentForm();
```
"this" -> the box containing the button were the user just clicked.
"getComponentForm()" ->action that picks the screen where the button is situated. So, that's Screen3!
We put this screen in a box to use it later

```
Container myContainerForAllRoars = new Container();
Layout myLayout = new BoxLayout(BoxLayout.Y_AXIS);
myContainerForAllRoars.setLayout(myLayout);
```
Creating a Container, creating a Box Y Layout, then saying that the Container should have this layout
This container is going to contain all roars.

#

Now, we are going to take each of the roars we received and put them on screen.

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In simple words, the lines of code below are doing the following:

1. "We'll start counting roars we received from Internet, starting at roar number zero.
2. While our counter of roars is lower than the total number of roars,
   - 3 - Get the title corresponding to the roar (so, for the 1st roar that is `-JywLB4G8OErGN3dsI_c`)
   - 4 - Get the JSON object corresponding to this title. So, for the 1st roar that is
     ```
     {"author":"seinecle",
      "roar":"This is an example of a roar"}
     ```
   - 5 - Get the value corresponding to the title "author" ("seinecle" for the 1st roar), put it in a box "author"
   - 6 - Get the value corresponding to the title "roar" ("This is an example of a roar" for the 1st roar), put it in box "roar"
   - 7 - Create a container
   - 8 - Create a label with the text of the box "author"
   - 9 - Create a label with the text of the box "roar"
   - 10 - Put these labelsin the container we just created
   - 11 - Add the container to the container "myContainer" created on the previous page (see #)
   - 12 - Move on to the next roar by adding 1 to our counter of roars

When we have finished looping through all the roars we have received,

- 13 - Add the bigger container (now containing all the labels representing the roars and their authors) to the screen. We add it in the last position, which is position "number of components already present on the screen". This number is obtained with the method getComponentCount() from the screen
- 14 - Refresh the screen so that the roars we added can appear"

```
1  Integer counterOfRoars = 0;

2  while (counterOfRoars < allRoarsInJsonFormat.length()) {
3          String idOfOneRoar = listOfRoarIds.getString(counterOfRoars);
4          JSONObject oneRoarInJsonFormat = (JSONObject) allRoarsInJsonFormat.get(idOfOneRoar);

5          String author = oneRoarInJsonFormat.getString("author");
6          String roarText = oneRoarInJsonFormat.getString("roar");

7          Container myRoarContainer = new Container();

8          Label myLabelForAuthor = new Label(author);
9          Label myLabelForRoar = new Label(roarText);

10         myRoarContainer.addComponent(myLabelForAuthor);
           myRoarContainer.addComponent(myLabelForRoar);

11         myContainerForAllRoars.addComponent(myRoarContainer);

12         counterOfRoars = counterOfRoars + 1;

   }  <-- End of loop, go back to 2

13 wallScreen.addComponent(wallScreen.getComponentCount(), myContainerForAllRoars);
14 wallScreen.revalidate();
```

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