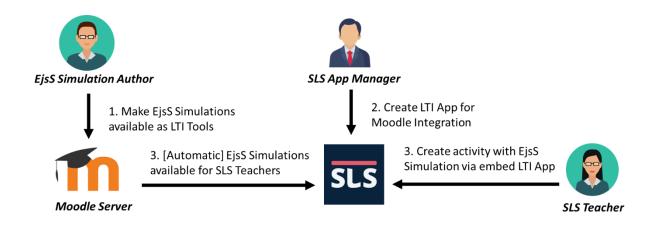
4 Monitoring of EjsS Simulations in SLS

Current Situation

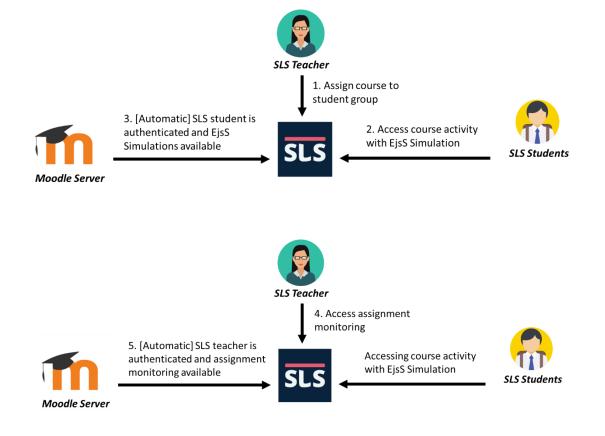
Moodle 4.0 and SLS integrated via LTI 1.3 (partial in SLS) Type 2 Apps

General design

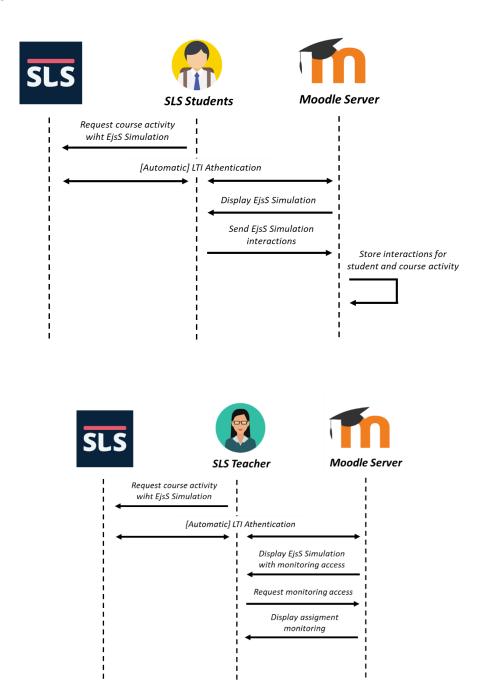
Integration Moodle – SLS



Student assignment and monitoring



Data exchange



Step 1. Define an assessment file

As a course creator in Moodle, define the file assessment.json with the activity questions. This file is used by Moodle to check the student interactions and automatically assess the student experience.

The general format of this file is:

more samples can be found here

- 1. https://github.com/lookang/codesforejss/blob/master/assessment.json with capability for checking data value
- 2. https://github.com/lookang/codesforejss/blob/master/assessment.pencil.json with capability of checking for equal in value

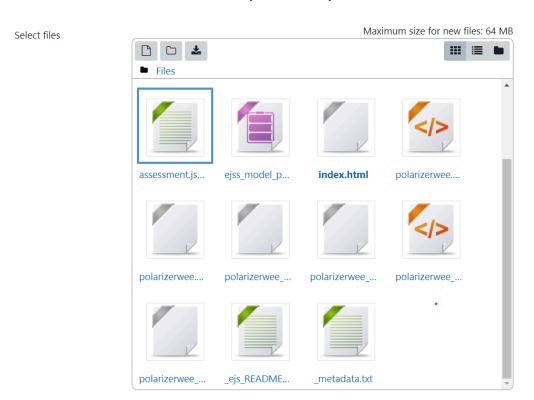
A step-by-step tutorial https://weelookang.blogspot.com/2022/11/how-to-prepare-your-easy-javascript.html is included here to help with the creation of the assessment.json file and the EJSS codes to be added.

An example is the following one:

```
// Example assessment json file
  tasks": [
               "name": "01",
       {
               "description": "Question 1",
               "marks" : [
                       {
                               "value": "1",
                               "state": [
                                       {"element": "input1", "property": "Value", "data": "9" }
                               "history": {"element": "log1", "property": "Value" }
                       },
                               "value": "2",
                               "state": [
                                       {"element": "input2", "property": "Value", "data": "3" }
                               "history": {"element": "log1", "property": "Value" }
                       },
                               "value": "3",
                               "state": [
                                       {"element": "input3", "property": "Value", "data": "3" },
                                       {"element": "input4", "property": "Value", "data": "9" }, {"element": "input5", "property": "Value", "data": "3" }
                               "history": {"element": "log1", "property": "Value" }
               ],
               "events": {
                       "start": {"element": "label", "property": "Value", "data": "Q1" },
                       "end" : {"element": "checkbutton", "action": "OnClick"}
               }
       },
               "name": "02",
               "description": "Question 2",
               "marks" : [
                               "value": "1",
                       {
                               "state": [
                                       {"element": "input1", "property": "Value", "data": "2" }
```

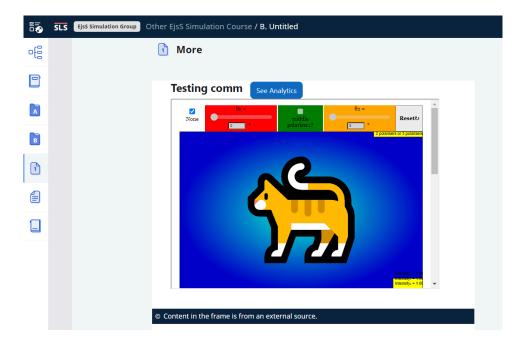
```
"history": {"element": "log1", "property": "Value" }
                      },
                               "value": "2",
                       {
                               "state": [
                                       {"element": "input2", "property": "Value", "data": "1" }
                               "history": {"element": "log1", "property": "Value" }
                       },
                               "value": "3",
                               "state": [
                                       {"element": "input3", "property": "Value", "data": "1" }, {"element": "input4", "property": "Value", "data": "3" },
                                       {"element": "input5", "property": "Value", "data": "4" }
                               "history": {"element": "log1", "property": "Value" }
                       }
              ],
"events": {
                      "start": {"element": "label", "property": "Value", "data": "Q1" },
                      "end" : {"element": "checkbutton", "action": "OnClick"}
      }
]
```

And upload this file with the filename "assessment.json" in the EjsS simulation in Moodle.

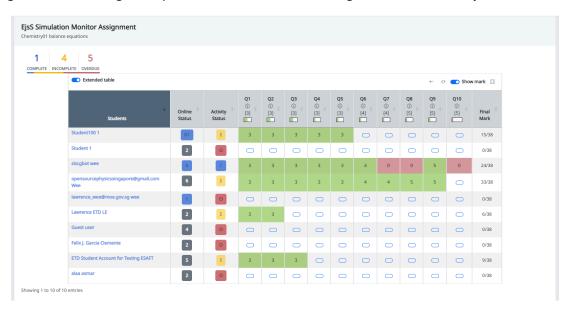


Step 2. Access monitoring from SLS

As a SLS teacher access the activity with the EjsS Simulation and then click the button "See Analytics".



The assignment monitoring will report students status considering the file assessment.json.



Visit EJSS LTI Moodle https://iwant2study.org/moodle402/login/index.php

Create an teacher account here https://iwant2study.org/moodle402/login/signup.php

self enroll here https://iwant2study.org/moodle402/course/view.php?id=6

For example visit Chemistry https://iwant2study.org/moodle402/mod/laejss/view.php?id=34

as role of Teacher, see Data Analytics

https://iwant2study.org/moodle402/mod/laejss/report_lti.php?title=Chemistry01+balance+equations&cm=34&cminstance=11&course=6&resourcelink=

as role of Student, interact with simulations https://iwant2study.org/moodle402/mod/laejss/view.php?id=34 for interaction data to be capture and display on Teacher dashboard