

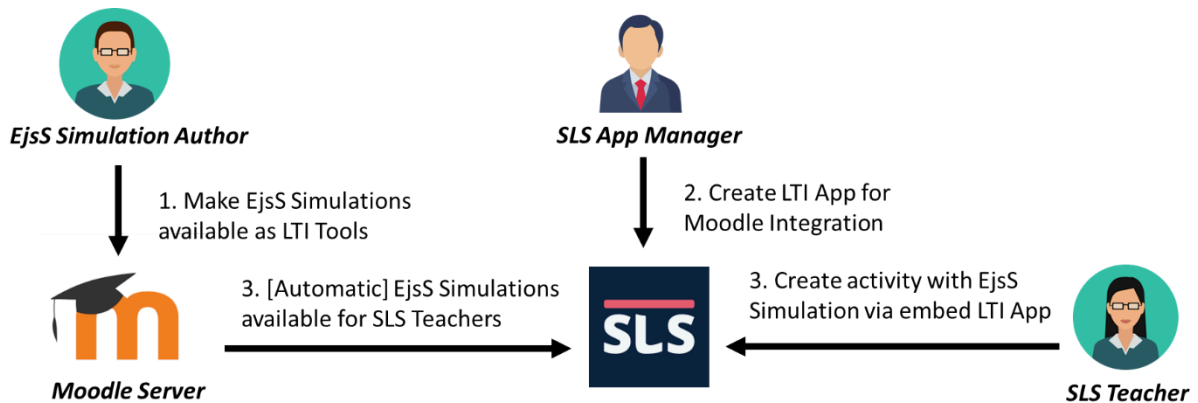
4 Monitoring of EjsS Simulations in SLS

Current Situation

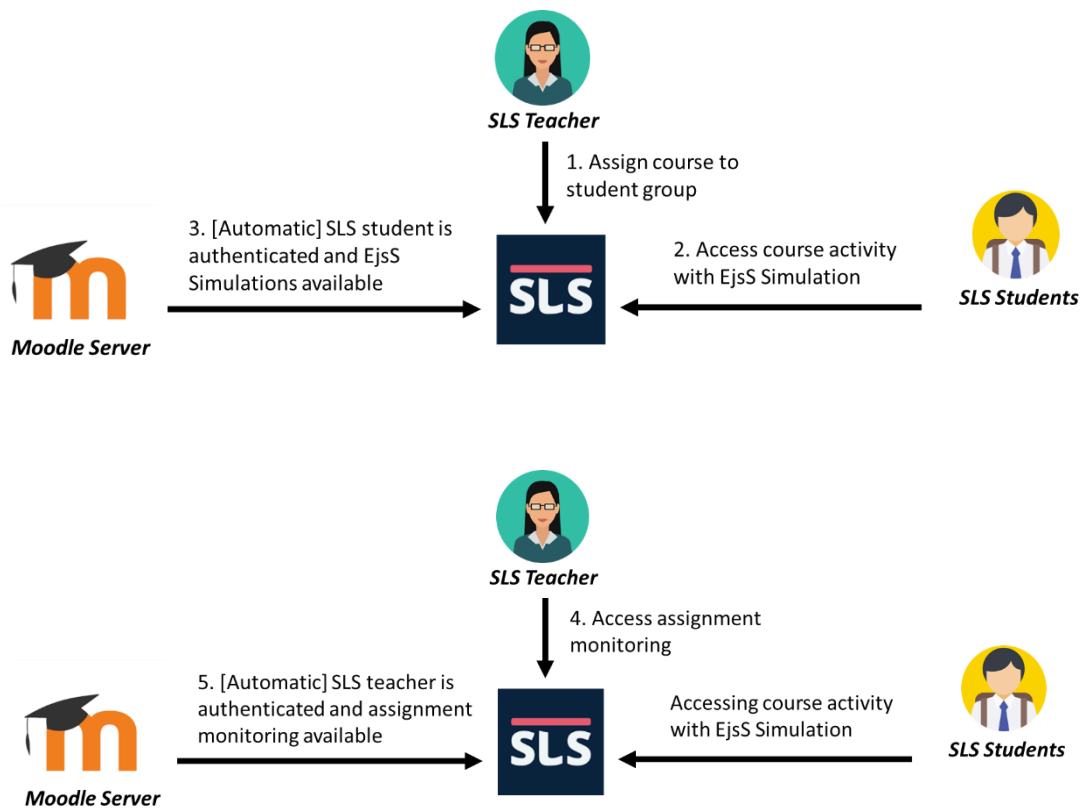
Moodle 4.0 and SLS integrated via LTI 1.3 (partial in SLS) Type 2 Apps

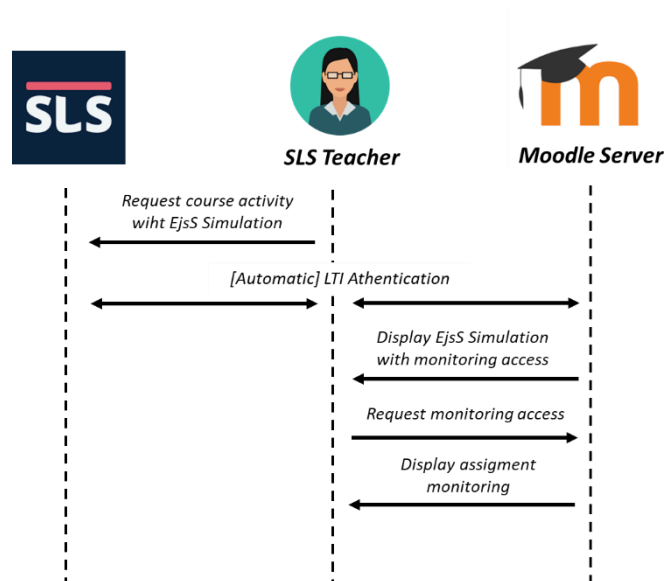
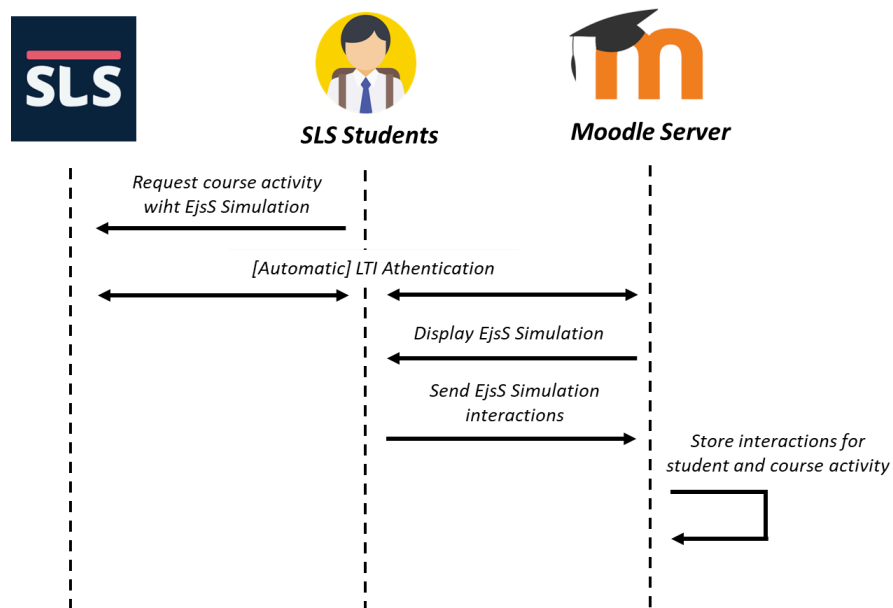
General design

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:

```
[
  {
    "name": "short name of the question",
    "description": "description of the question",
    "marks": [
      {
        "value": "mark value",
        "state": [ ... ], // properties and their values
        "history": { ... } // element with info
      }, ... ],
    "events": {
      "start": { ... }, // starting event of the question
      "end": { ... }, // ending event of the question
    }
  }, ...
]
```

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": "Q1",
      "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": "checkboxbutton", "action": "OnClick" }
      }
    },
    {
      "name": "Q2",
      "description": "Question 2",
      "marks": [
        {
          "value": "1",
          "state": [
            { "element": "input1", "property": "Value", "data": "2" }
          ]
        }
      ]
    }
  ]
}
```

```

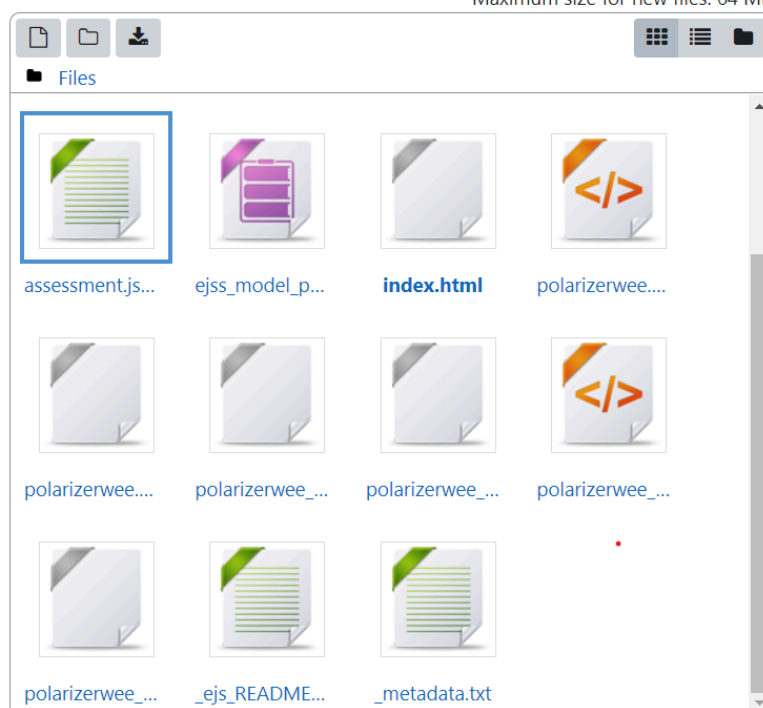
    ],
    "history": { "element": "log1", "property": "Value" }
  },
  {
    "value": "2",
    "state": [
      { "element": "input2", "property": "Value", "data": "1" }
    ],
    "history": { "element": "log1", "property": "Value" }
  },
  {
    "value": "3",
    "state": [
      { "element": "input3", "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": "checkboxbutton", "action": "OnClick" }
}
}
]
}

```

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

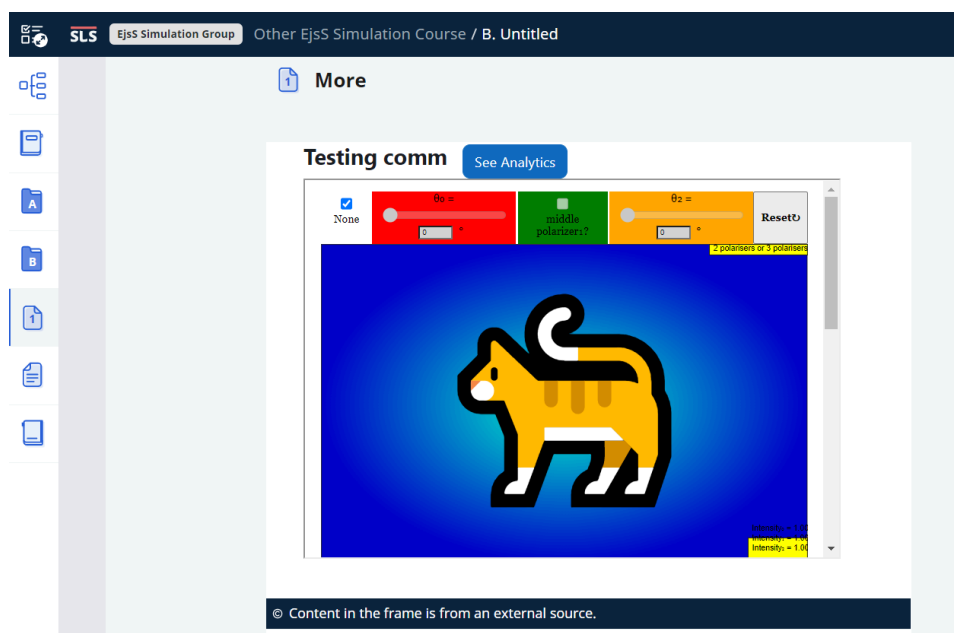
Select files

Maximum size for new files: 64 MB



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.

EJSS Simulation Monitor Assignment
Chemistry01 balance equations

1 4 5
COMPLETE INCOMPLETE OVERDUE

Extended table

Students	Online Status	Activity Status	Q1 0/3	Q2 0/3	Q3 0/3	Q4 0/3	Q5 0/3	Q6 0/4	Q7 0/4	Q8 0/5	Q9 0/5	Q10 0/5	Final Mark
Student1001	61	I	3	3	3	3	3	0	0	0	0	0	15/38
Student1	2	O	0	0	0	0	0	0	0	0	0	0	0/38
slscgbot wee	6	I	3	3	3	3	3	4	0	0	5	0	24/38
opensourcephysicssingapore@gmail.com Wee	6	I	3	3	3	3	3	4	4	5	5	0	33/38
lawrence_wee@moe.gov.sg wee	1	O	0	0	0	0	0	0	0	0	0	0	0/38
Lawrence ETD LE	2	I	3	3	0	0	0	0	0	0	0	0	6/38
Guest user	4	O	0	0	0	0	0	0	0	0	0	0	0/38
Felix J. Garcia Clemente	2	O	0	0	0	0	0	0	0	0	0	0	0/38
ETD Student Account for Testing ESAFT	5	I	3	3	3	0	0	0	0	0	0	0	9/38
alaa asmar	2	O	0	0	0	0	0	0	0	0	0	0	0/38

Showing 1 to 10 of 10 entries

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