



A Web platform to empower teachers and afford hard-to-scale pedagogies in traditional classrooms

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----- *Utilize the Web to enable* -----

Modern **Pedagogies**

----- *and increase* -----

Teacher **Awareness**

----- *as well as* -----

Student **Engagement**

--- *in order to achieve greater* ---

Educational Outcomes

A S Q

- Web-based lecture delivery system
- Real-time bidirectional communication
- ASQ cycle: 'present-ask-answer-assess-feedback'
- Question types as **plugins**
- Records tons of events
- You are using it right now!

Would you like to be able to do this directly on your slides?

- Yes
- No

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That was easy, what about this?

Please highlight the scope of the variables

Local Variable

Global Variable

The screenshot shows a code editor window titled "Working on 'Local Variable'". The code is as follows:

```
1 var a = 12;
2
3 function f(x,y) {
4
5     var b = 42;
6     c = 'String';
7
8 }
```

To the right of the code editor is a table with two columns: "Ranges" and "Occurrences". The "Occurrences" column is currently empty.

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Implement a function that returns the sum of the values of the input array:

```
function sum(a){
```

```
  1 | enter your code here
```

```
}
```

Test

```
> sum([1,10,-1,-10,42]);
```

Result:

Console Output:

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Why ASQ?

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----- *The* -----

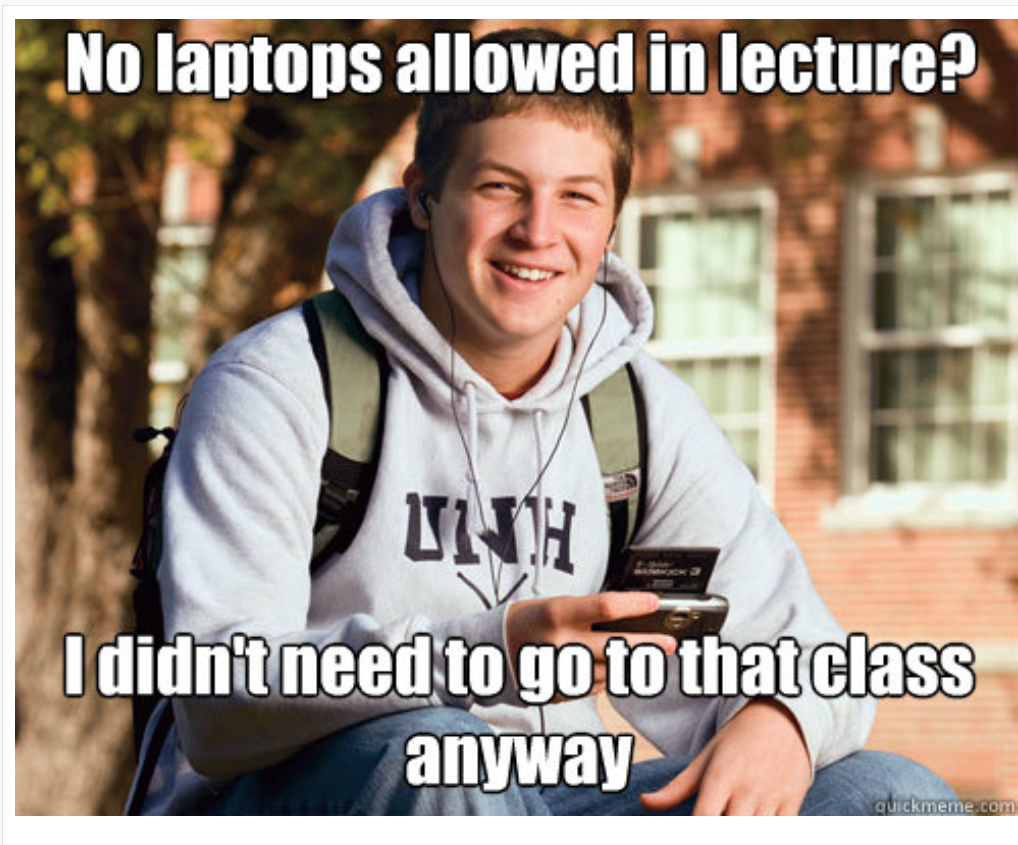
Lecture Hall

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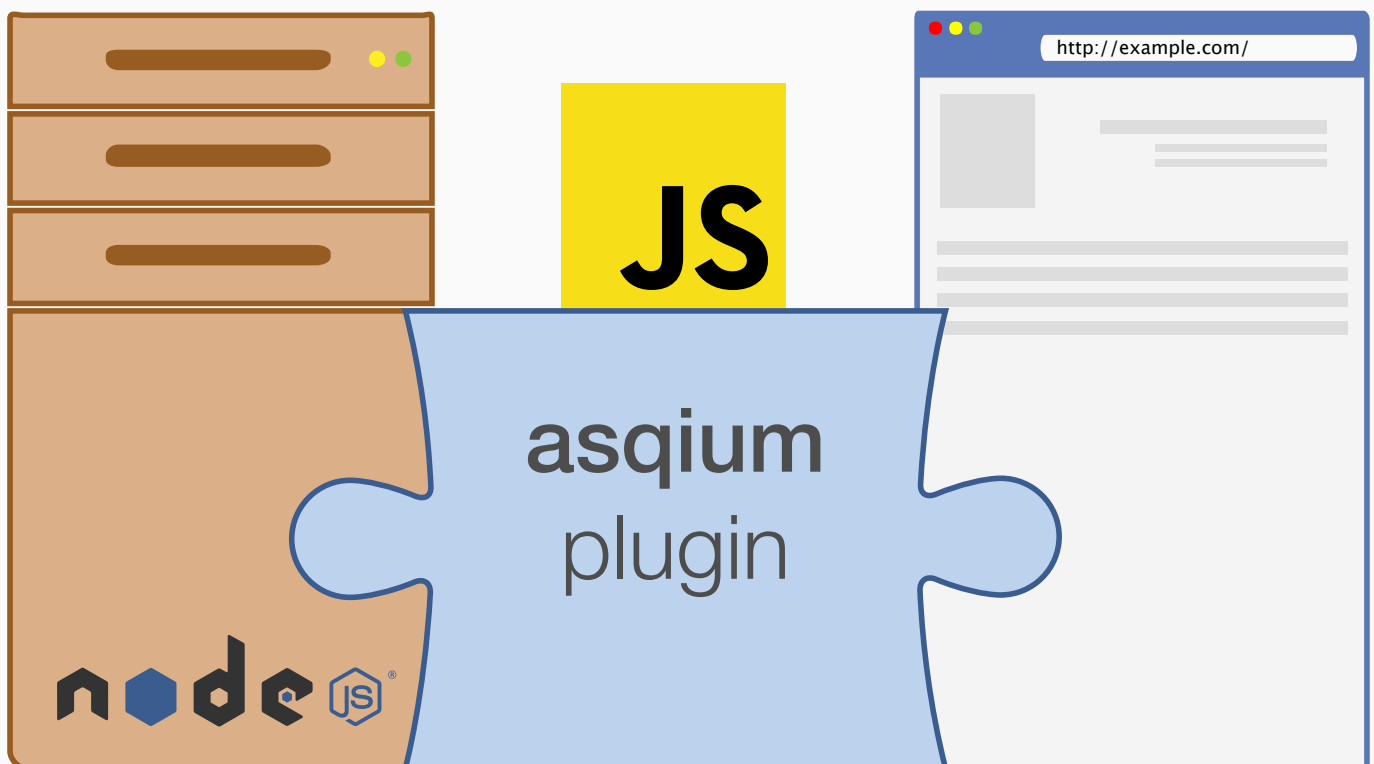
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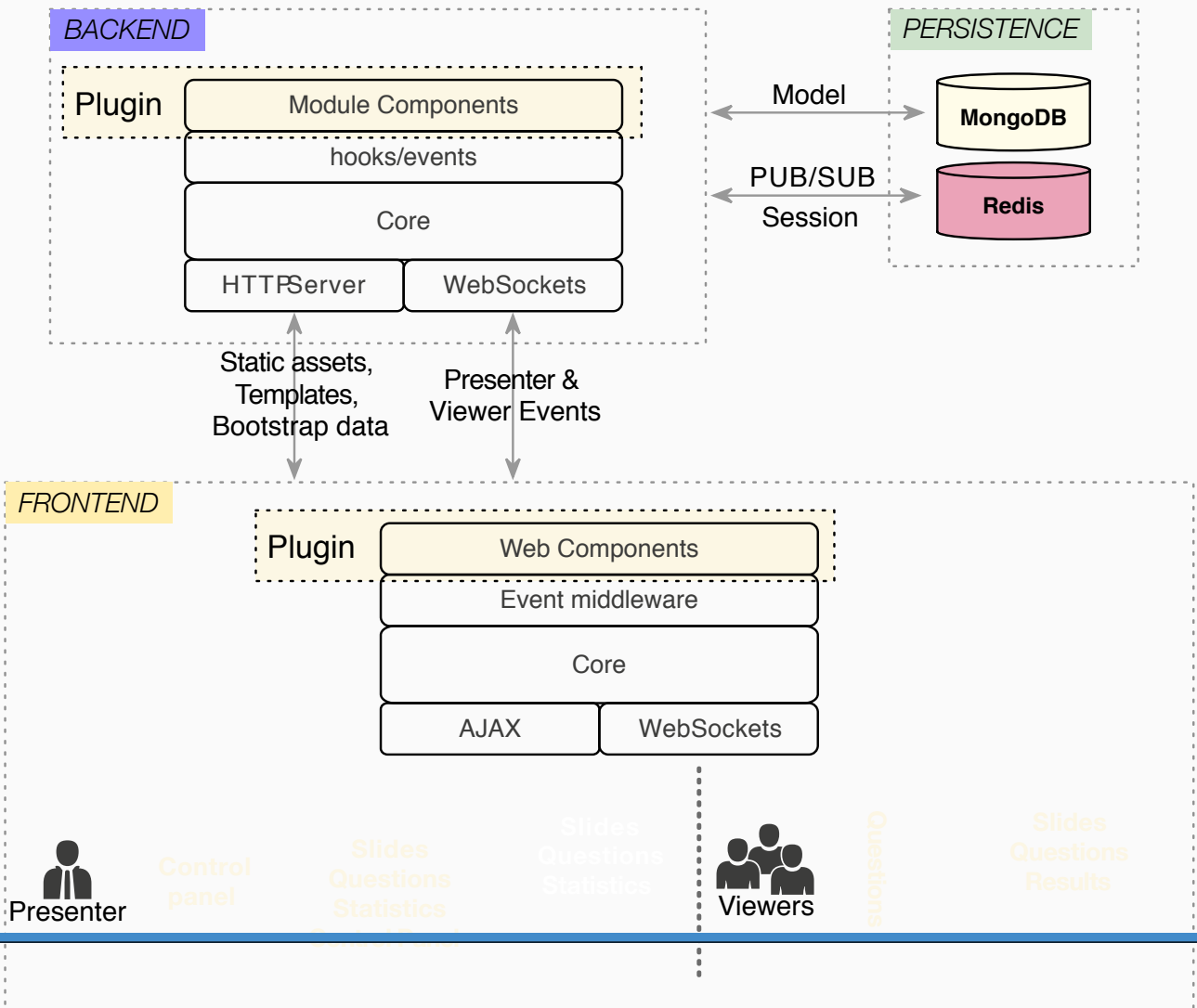
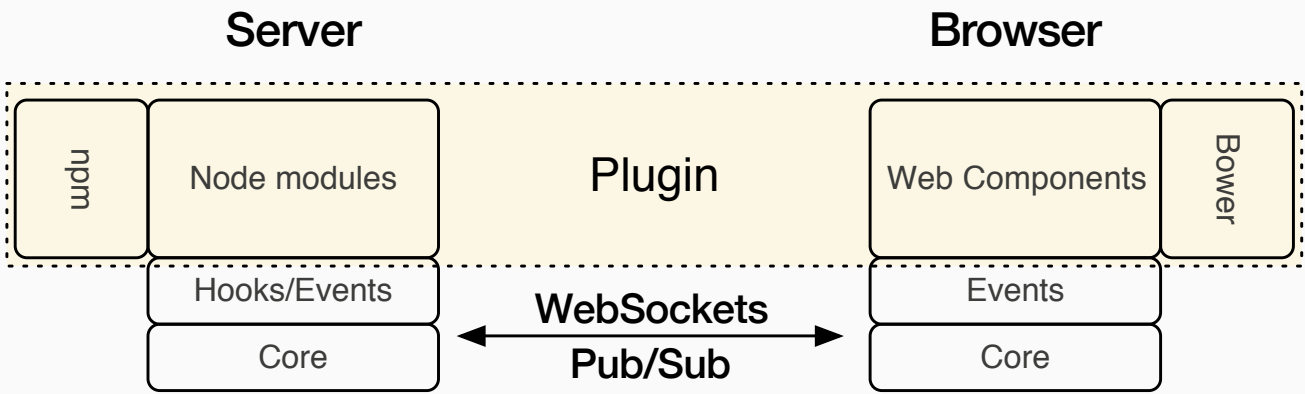


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- Questions, Lectures as **Resources**
- Easy to create, extent, share questions
- Record the **whole process** of answering questions
- Customize statistics per question type
- Multiple Assessment methods
- Synchronous, asynchronous **bi-directional** feedback
- Gamification, rewards





The `<asq-highlight-q>` question type plugin : stem

✓ Visibility Modifiers

■ Variable Declarations **color task**

■ Other keywords

Working on 'Visibility Modifiers'

	Ranges	Occurrences
1- public class C {		
2- public void m() {		
3- int i = i + 5 + ((int)5.0);		
4- }		
5- }		

code

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`<asq-highlight>` usage

```
<asq-highlight theme="textmate" mode="java" fontSize="1em">
  <asq-stem>The asq-highlight-q question type plugin</asq-stem>
  <asq-hl-color-task color="d9534f">Visibility Modifiers</asq-hl-color-task>
  <asq-hl-color-task color="428bca">Variable Declarations</asq-hl-color-task>
  <asq-hl-color-task color="f0ad4e">Other keywords</asq-hl-color-task>
  <code>public class C {
    public void m() {
      int i = i + 5 + ((int)5.0) + ((int)5f);
    }
  }</code></asq-highlight>
```

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- Single code repository

<https://github.com/ASQ-USI/asq-highlight>

- Directory structure

```
├─ README.md
├─ asq-highlight.html # Web Component
├─ bower.json # Bower package and frontend dependencies
├─ demo.html
├─ elements
│   └─ ...
├─ index.js # node.js module entry
├─ lib
│   └─ asqHighlightPlugin.js # node.js module
├─ node_modules
│   └─ ...
├─ package.json # npm package and backend dependencies
├─ test
│   └─ element
│       └─ server
```

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- Install frontend

```
>_ bower install --save asq-highlight
```

- Install backend

```
>_ npm install --save asq-highlight
```

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 **repositories**

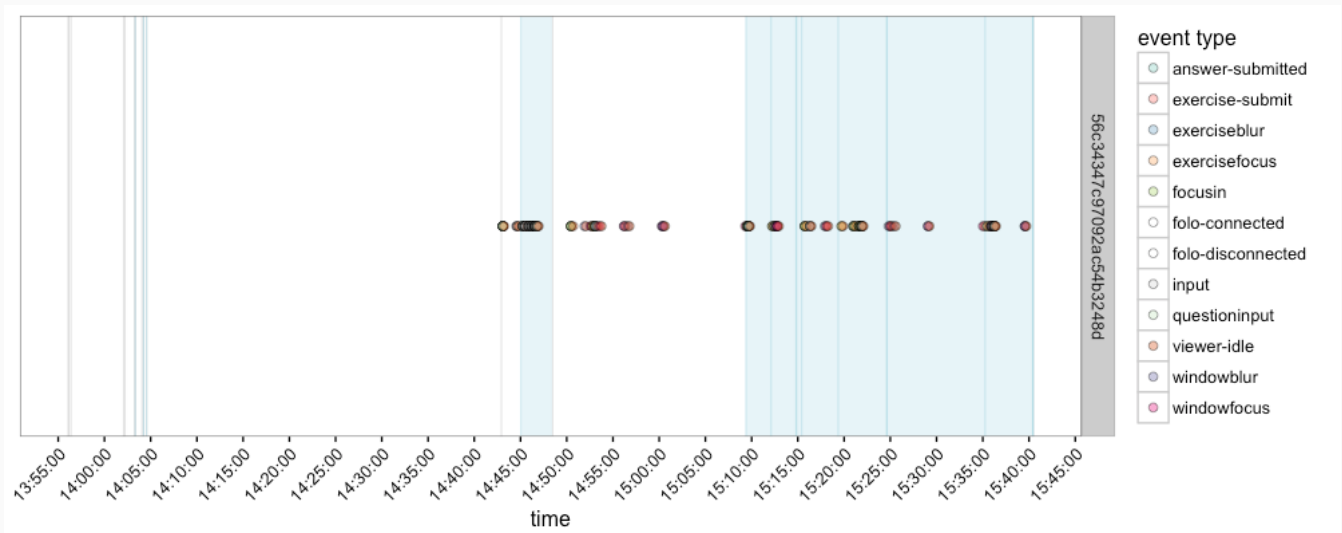
<https://github.com/ASQ-USI/ASQ/>

<https://github.com/ASQ-USI-Elements/>

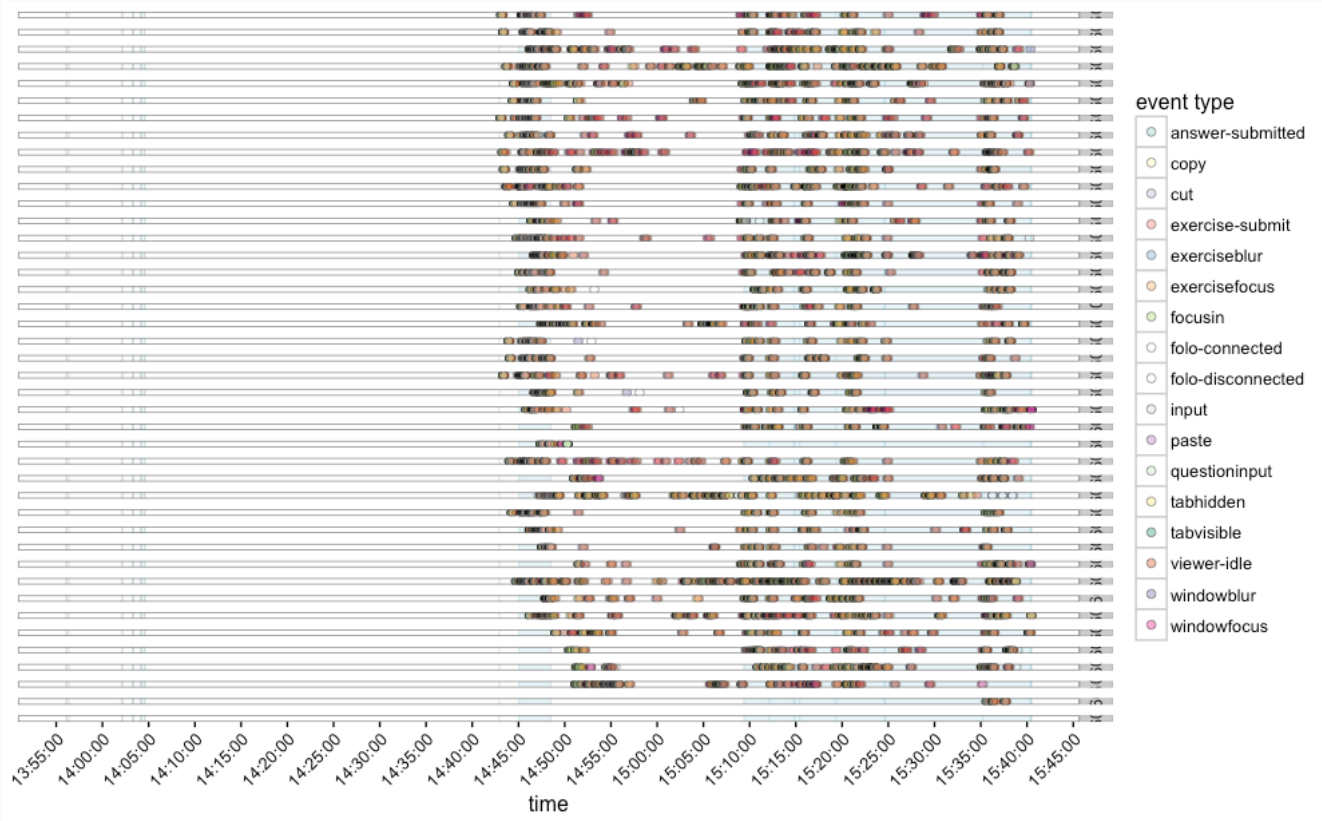
The data

- slides
- questions
- answers
- events
 - ctrl-connected, ctrl-disconnected, folo-disconnected, folo-connected
 - ctrl:goto, exercise-activated, question-activated, exercise-deactivated, question-deactivated
 - questioninput, input, copy, cut, paste
 - viewer-idle, focusin, focusout, windowblur, windowfocus, tabhidden, tabvisible, exercisefocus, exerciseblur
 - exercise-edit, exercise-submit, answer-submitted

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tabvisible,
windowfocus,
focusin,
exercisefocus,
input,
questioninput,
exercise-submit,
answer-submitted

