

Software Engineering

Session 5

Today

Lab

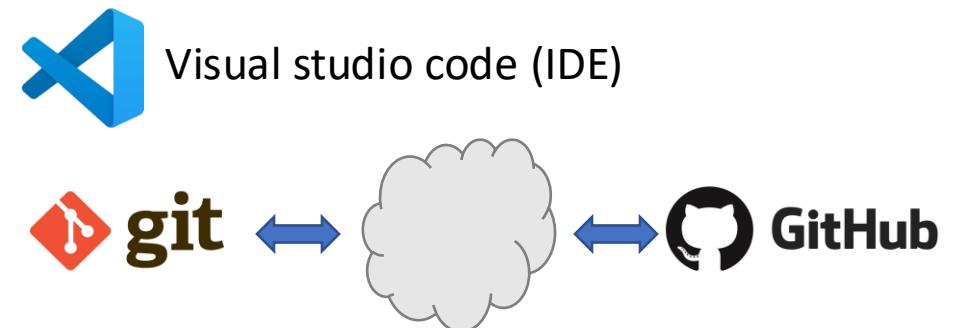
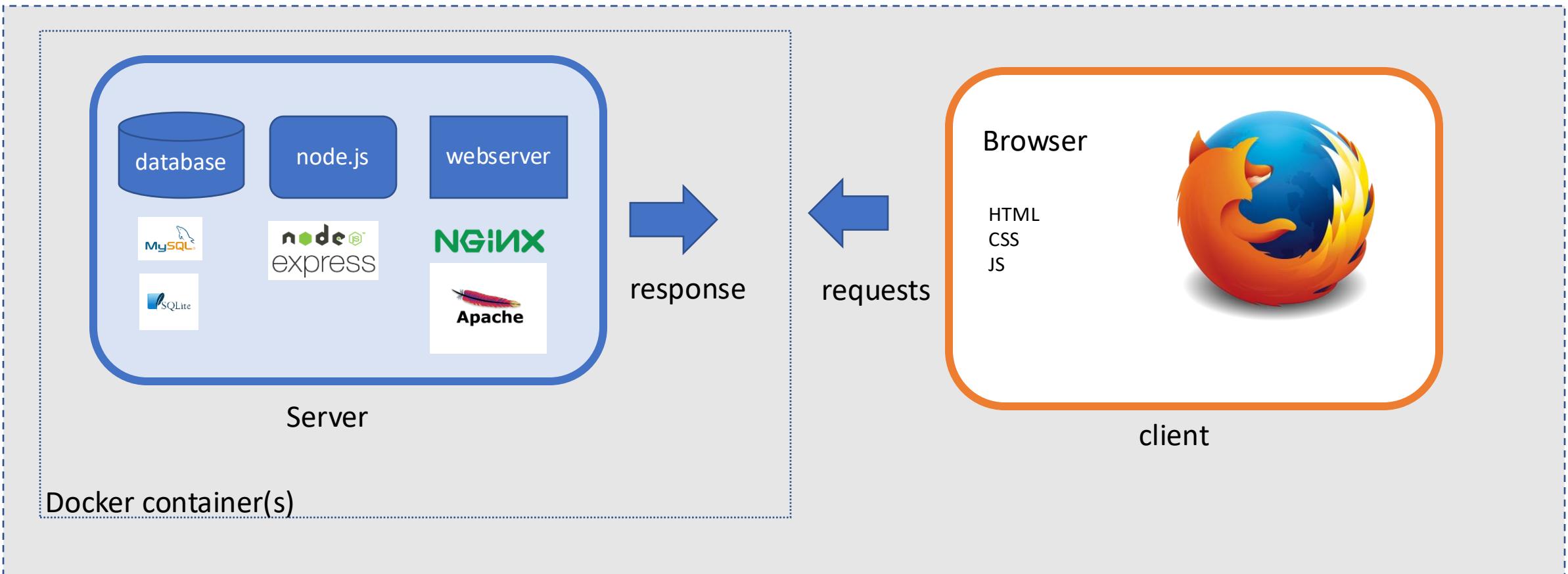
- MVC design pattern
- PUG templating system

Seminar

- Sprint 2 tasks

NEXT WEEK: Career development week. Sprint reviews and supported workshops for sprint 3 – come for your sprint review at your scheduled time and use the lesson time to work on sprint 3

Development environments: When projects are in development, developers will have all the client and server software running on their own computer. Additionally they will use tools such as VS Code and Git to write and manage source code.

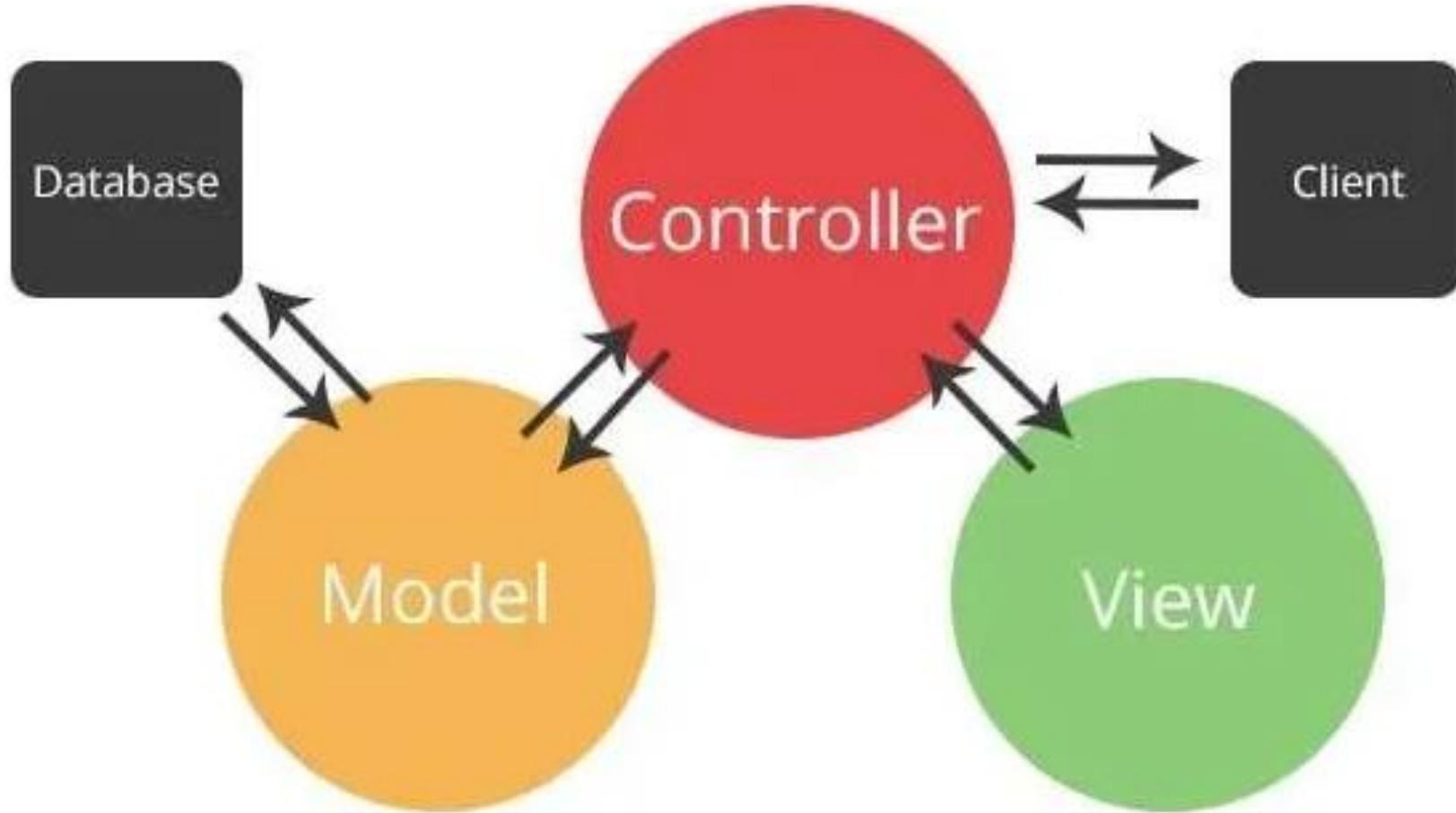


Whats wrong with this code?

```
// Task 2 display a formatted list of students
app.get("/all-students-formatted", function(req, res) {
  var sql = 'select * from Students';
  // As we are not inside an async function we cannot use await
  // So we use .then syntax to ensure that we wait until the
  // promise returned by the async function is resolved before we proceed
  var output = '<table border="1px">';
  db.query(sql).then(results => {
    for (var row of results) {
      output += '<tr>';
      output += '<td>' + row.id + '</td>';
      output += '<td>' + '<a href=".single-student/' + row.id + '">' + row.name + '</a>' + '</td>';
      output += '</tr>';
    }
    output+= '</table>';
    res.send(output);
  });
});
```

All students

1	Kevin Chalmers
2	Lisa Haskel
3	Arturo Araujo
4	Sobhan Tehrani
100	Oge Okonor
200	Kimia Aksir



Refactored app.js

```
// Task 2 display a formatted list of students
app.get("/all-students-formatted", function(req, res) {
  var sql = 'select * from Students';
  db.query(sql).then(results => {
    // Send the results rows to the all-students template
    // The rows will be in a variable called data
    res.render('all-students', {data: results});
  });
});
```

All students

1	Kevin Chalmers
2	Lisa Haskel
3	Arturo Araujo
4	Sobhan Tehrani
100	Oge Okonor
200	Kimia Aksir

New all-students pug template

(You will need to create this file and place it in the views directory)

```
extends layout
block content
  - console.log(data)
  .main-content
    h1 All students
    table(border=1)
      for item in data
        tr
          td #{item.id}
          td
            a(href='/student-single/' + item.id) #{item.name}
```

More on templating systems

Why?

- Separation of business logic and presentation
- Divide coding tasks into backend and front end (front end developers can start with static code)

What other systems are there?

- Many! eg. With CMSs like Wordpress, Drupal, Django,
- Javascript including ejs, Jade

ALL web frameworks have a templating system that combine HTML code with variables sent from the backend.

Sprint 2 tasks

The aim of this sprint is to assemble the initial requirements and ensure that specifications are ready for sprint 3.

- Checklist Submission 2 The following must be in place:
- A single PDF Document with:
 - Features for your application defined as user stories
 - Use case diagram
- Sprint 3 specification prepared with at least:
 - User stories
 - Wireframes
 - Activity diagrams.
- Other artefacts may be included such as sequence diagrams, ERD diagram, class diagram, designs, colour schemes
- Sprint 3 tickets prepared on your Kanban board
- A screenshot of your Kanban board
- All students up to date with lab work and ready to start development
- Meeting records completed