

Module 7: Assignment Using Server-Side Rendering with PUG Server

Spurthy Mutturaj

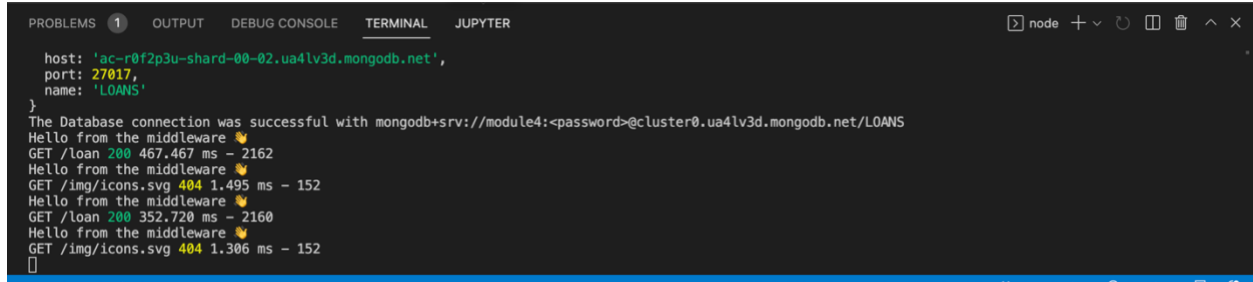
Instructor: Dinesh Sthapit

Oct 27,2022

GitHub:

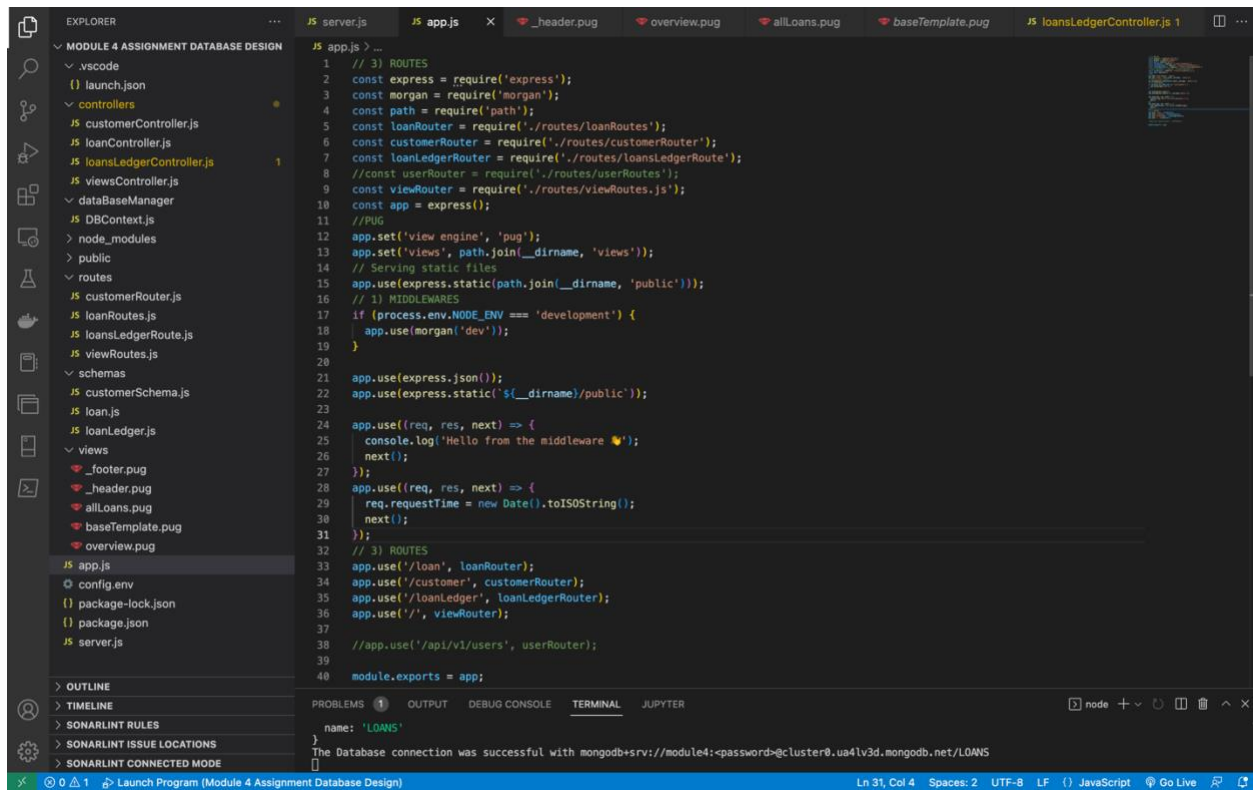
<https://github.com/spurthym/Middleware-Programming/tree/main/Module7%20Assignment2%20PUG>

Successful Connection to the Database



```
host: 'ac-r0f2p3u-shard-00-02.ua4lv3d.mongodb.net',
port: 27017,
name: 'LOANS'
}
The Database connection was successful with mongodb+srv://module4:<password>@cluster0.ua4lv3d.mongodb.net/LOANS
Hello from the middleware 🍷
GET /loan 200 467.467 ms - 2162
Hello from the middleware 🍷
GET /img/icons.svg 404 1.495 ms - 152
Hello from the middleware 🍷
GET /loan 200 352.720 ms - 2160
Hello from the middleware 🍷
GET /img/icons.svg 404 1.306 ms - 152
[]
```

App.js File, Including the pug and view engine on lines 12 and 13



```
1 // 3) ROUTES
2 const express = require('express');
3 const morgan = require('morgan');
4 const path = require('path');
5 const loanRouter = require('./routes/loanRoutes');
6 const customerRouter = require('./routes/customerRouter');
7 const loanLedgerRouter = require('./routes/loanLedgerRoute');
8 //const userRouter = require('./routes/userRoutes');
9 const viewRouter = require('./routes/viewRoutes.js');
10 const app = express();
11 //PUG
12 app.set('view engine', 'pug');
13 app.set('views', path.join(__dirname, 'views'));
14 // Serving static files
15 app.use(express.static(path.join(__dirname, 'public')));
16 // 1) MIDDLEWARES
17 if (process.env.NODE_ENV === 'development') {
18   app.use(morgan('dev'));
19 }
20
21 app.use(express.json());
22 app.use(express.static(path.join(__dirname, 'public')));
23
24 app.use((req, res, next) => {
25   console.log('Hello from the middleware 🍷');
26   next();
27 });
28 app.use((req, res, next) => {
29   req.requestTime = new Date().toISOString();
30   next();
31 });
32 // 3) ROUTES
33 app.use('/loan', loanRouter);
34 app.use('/customer', customerRouter);
35 app.use('/loanLedger', loanLedgerRouter);
36 app.use('/', viewRouter);
37
38 //app.use('/api/v1/users', userRouter);
39
40 module.exports = app;
```

Pug template to render on Browser:

The screenshot shows the VS Code editor with the file explorer on the left displaying the project structure. The main editor window shows the `allLoans.pug` file. The code is a Pug template that extends `baseTemplate` and contains a table to display loan data. The table has a header with columns for Loan Number, Loan Type, Amount, Interest Rate, and Created Date. The body of the table is populated with data from the `loans` array.

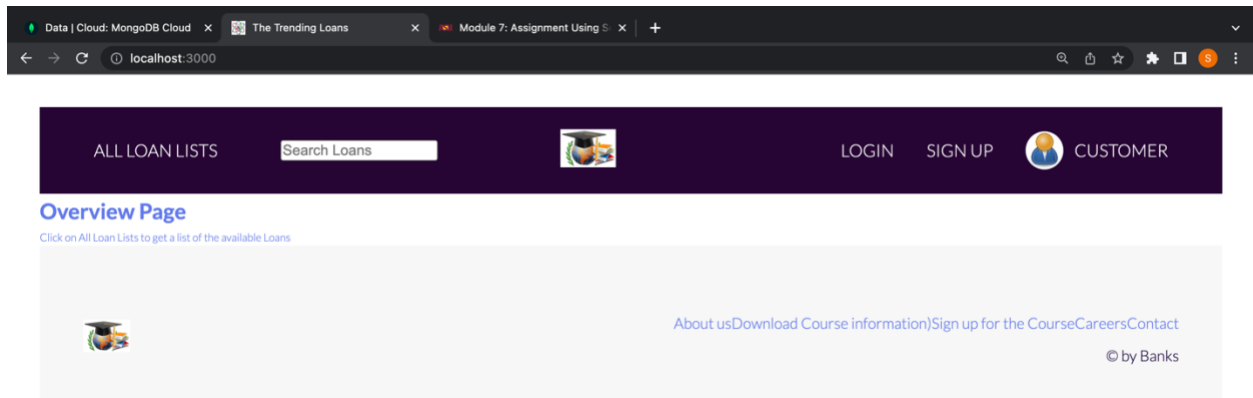
```
1 extends baseTemplate
2
3 block content
4   h1 This is dynamic Loan Overview
5
6   div
7     table.table-header
8       thead
9         tr
10          th(scope='col') Loan Number
11          th(scope='col') Loan Type
12          th(scope='col') Amount
13          th(scope='col') Interest Rate
14          th(scope='col') Created Date
15       tbody
16         each loan in loans
17           tr.table-secondary
18             td=loan.loanNumber
19             td=loan.loanType
20             td=loan.amount
21             td=loan.interestRate
22             td=loan.createdDate
```

The loan is queried from MongoDB and rendered to the Pug Template on lines: 14 and 15

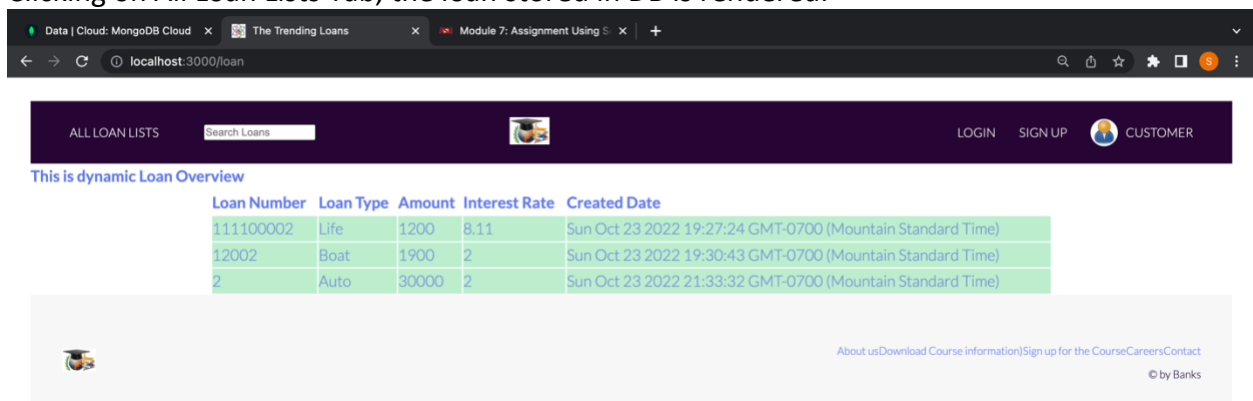
The screenshot shows the VS Code editor with the file explorer on the left displaying the project structure. The main editor window shows the `loanController.js` file. The code is a JavaScript file that defines the `getAlloans` and `getLoan` functions. The `getAlloans` function queries the `loans` collection from MongoDB and renders the results to the `allLoans.pug` template. The `getLoan` function queries the `loans` collection from MongoDB and returns the loan details as a JSON object.

```
1 const loan = require('../schemas/loan');
2 const APIFeatures = require('../dataBaseManager/DBContext');
3
4 exports.getAlloans = async (req, res) => {
5   try {
6     // EXECUTE QUERY
7     const features = new APIFeatures(loan.find(), req.query)
8       .filter()
9       .sort()
10      .limitFields()
11      .paginate();
12     const loans = await features.query;
13
14     res.status(200).render('allLoans', { // this will render allLoans.pug
15       loans
16     });
17     // SEND RESPONSE
18     // res.status(200).json({
19     //   status: 'success',
20     //   results: loans.length,
21     //   data: {
22     //     loans
23     //   }
24     // });
25   } catch (err) {
26     res.status(404).json({
27       status: 'fail',
28       message: err
29     });
30   }
31 };
32
33 exports.getLoan = async (req, res) => {
34   try {
35     const loan1 = await loan.findById(req.params.id);
36     // loan.findOne({ _id: req.params.id })
37
38     res.status(200).json({
39       status: 'success',
40       data: {
```

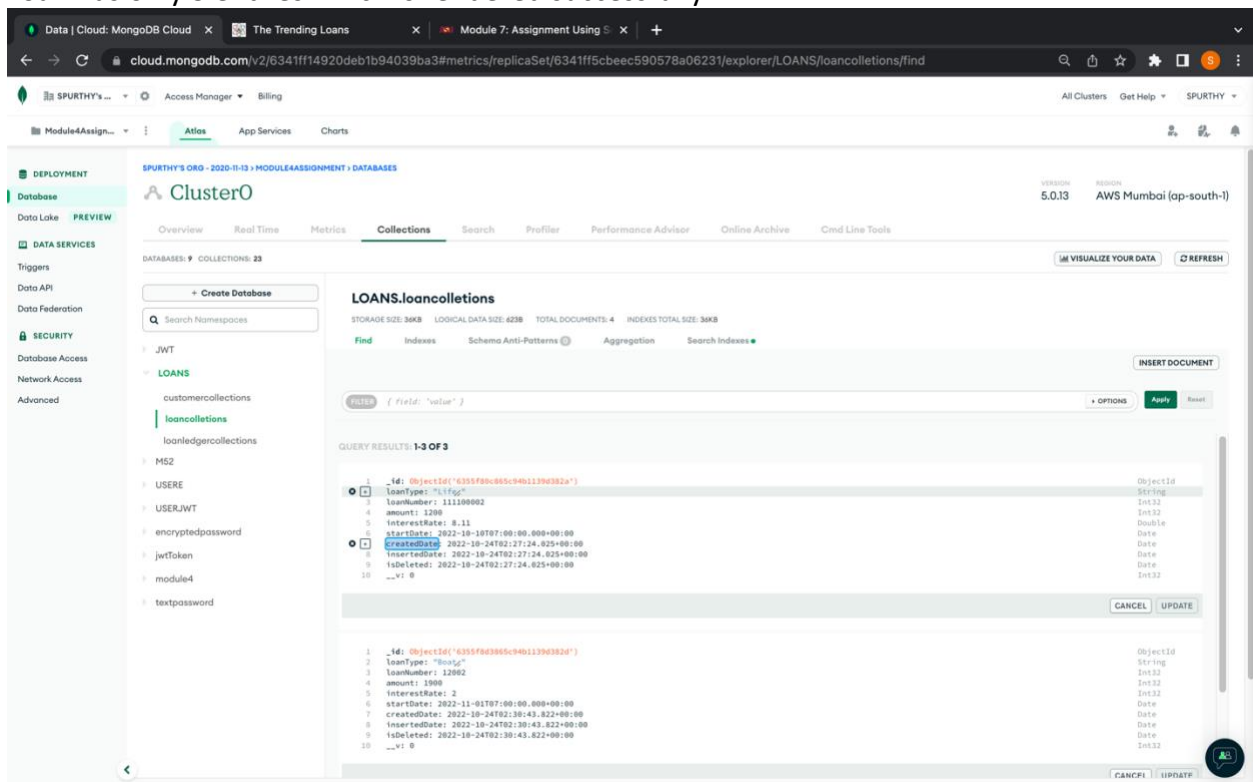
Browser Screenshots



Clicking on All Loan Lists Tab, the loan stored in DB is rendered.

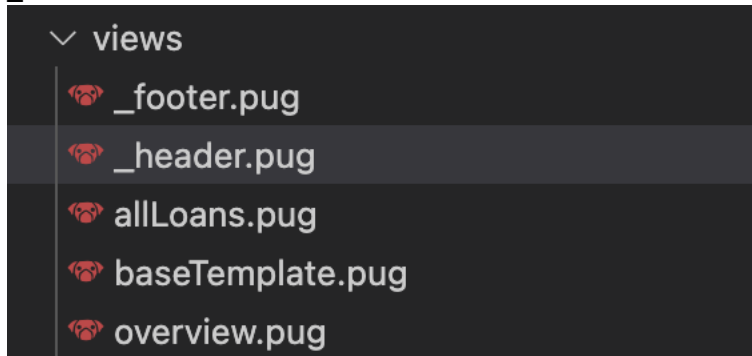


Loan has only 3 entries which is rendered successfully.

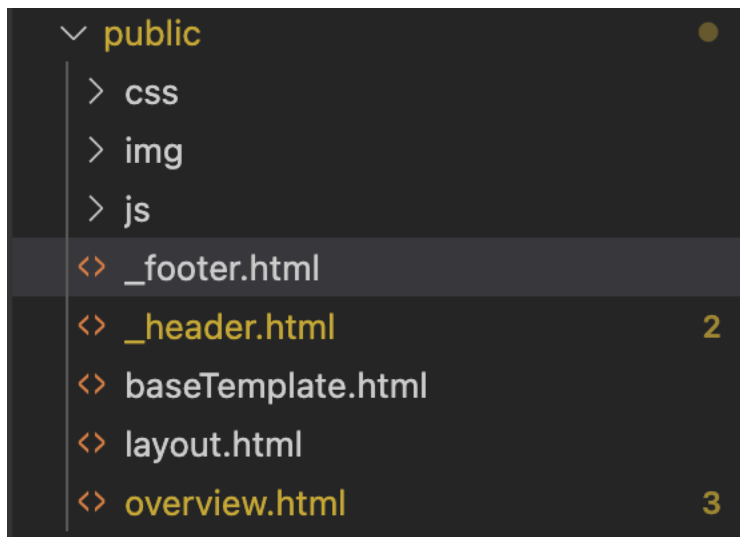


Step 2:

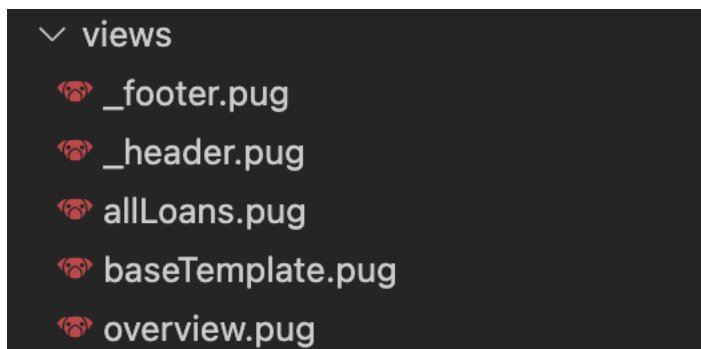
The Pug templates have been reused by componentizing it as `_header` ,`baseTemplate` and `_Footer`:



Public folder containing all the HTML Files



Views Folder containing all the pug UI elements



HTML Files:

```
1 |
2 | <div class="footer">
3 |   <div class="footer_logo"></div>
4 |   <ul class="footer__nav">
5 |     <li><a href="#">About us</li>
6 |     <li><a href="#">Download Course Information</li>
7 |     <li><a href="#">Sign up for the Course</li>
8 |     <li><a href="#">Careers</li>
9 |     <li><a href="#">Contact</li>
10 |   </ul>
11 |   <p class="footer__copyright">©copy; by Banks</p>
12 | </div>

1 |
2 | <header class="header">
3 |   <nav class="nav nav--course"><a class="nav__el" href="/loan">All Loan Lists</a>
4 |   <form class="nav_search">
5 |     <button class="nav__search-btn">
6 |       <svg>
7 |         <use xlink:href="img/icons.svg#icon-search"/></use>
8 |       </svg>
9 |     </button>
10 |     <input type="text" placeholder="Search Loans"/>
11 |   </form>
12 | </nav>
13 | <div class="header_logo"></div>
14 | <nav class="nav nav--user"><a class="nav__el nav__el" href="/login">Login</a><a class="nav__el nav__el" href="/signup">Sign Up</a><a class="nav__el" href="/me"><span>Customer </span></a></nav>
16 | </header>
```

```
1 | <!DOCTYPE html>
2 | <html>
3 |   <head>
4 |     <meta charset="UTF-8">
5 |     <meta name="viewport" content="width=device-width, initial-scale=1.0">
6 |     <link rel="stylesheet" href="/css/style.css">
7 |     <link rel="shortcut icon" type="image/png" href="/img/favicon.png">
8 |     <link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Lato:300,300i,700">
9 |     <title>The Trending Loans</title>
10 |   </head>
11 |   <body>
12 |     <!-- DUNK BLUE HEADER -->
13 |     <header class="header">
14 |       <nav class="nav nav--course"><a class="nav__el" href="/loan">All Loan Lists</a>
15 |       <form class="nav_search">
16 |         <button class="nav__search-btn">
17 |           <svg>
18 |             <use xlink:href="img/icons.svg#icon-search"/></use>
19 |           </svg>
20 |         </button>
21 |         <input type="text" placeholder="Search Loans">
22 |       </form>
23 |     </nav>
24 |     <div class="header_logo"></div>
25 |     <nav class="nav nav--user"><a class="nav__el nav__el" href="/login">Login</a><a class="nav__el nav__el" href="/signup">Sign Up</a><a class="nav__el" href="/me"><span>Customer </span></a></nav>
27 |     </header>
28 |     <!-- CONTENT -->
29 |     <div>This will be replaced</div>
30 |     <!-- FOOTER -->
31 |     <div class="footer">
32 |       <div class="footer_logo"></div>
33 |       <ul class="footer__nav">
34 |         <li><a href="#">About us</li>
35 |         <li><a href="#">Download Course Information</li>
36 |         <li><a href="#">Sign up for the Course</li>
37 |         <li><a href="#">Careers</li>
38 |         <li><a href="#">Contact</li>
39 |       </ul>
40 |       <p class="footer__copyright">©copy; by Banks</p>
41 |     </div>
42 |   </body>
43 | </html>
```

```
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <meta charset="UTF-8">
5     <meta name="viewport" content="width=device-width, initial-scale=1.0">
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8     <link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Lato:300,300i,700">
9     <title>The Trending Loans</title>
10  </head>
11  <body>
12    <!-- DARK BLUE HEADER -->
13    <header class="header">
14      <nav class="nav nav--course"><a class="nav__el" href="/loan">All Loan Lists</a>
15      <form class="nav__search">
16        <button class="nav__search-btn">
17          <svg>
18            <use xlink:href="/img/icons.svg#icon-search"></use>
19          </svg>
20        </button>
21        <input type="text" placeholder="Search Loans">
22      </form>
23    </nav>
24    <div class="header__logo"></div>
25    <nav class="nav nav--user"><a class="nav__el nav__el" href="/login">Login</a><a class="nav__el nav__el" href="/signup">Sign Up</a><a class="nav__el" href="/me"><span>Customer </span></a></nav>
26  </header>
27  <!-- CONTENT -->
28  <h1>Overview Page </h1>
29  <p>Click on All Loan Lists to get a list of the available Loans</p>
30  <!-- FOOTER -->
31  <div class="footer">
32    <div class="footer__logo"></div>
33    <ul class="footer__nav">
34      <li><a href="#">About us</li>
35      <li><a href="#">Download Course information</li>
36      <li><a href="#">Sign up for the Course</li>
37      <li><a href="#">Careers</li>
38      <li><a href="#">Contact</li>
39    </ul>
40    <p class="footer__copyright">&copy; by Banks</p>
41  </div>
42  </body>
43 </html>
```

PUG Files

```
EXPLORER
  MODULE7 ASSIGNMENT1
    .vscode
    controllers
      JS customerController.js
      JS loanController.js
      JS loansLedgerController.js
      JS viewsController.js
    dataBaseManager
    node_modules
    public
    css
    img
    js
    _footer.html
    _header.html
    baseTemplate.html
    layout.html
    overview.html
    routes
    schemas
      JS customerSchema.js
      JS loan.js
      JS loanLedger.js
    views
      _footer.pug
      _header.pug
      allLoans.pug

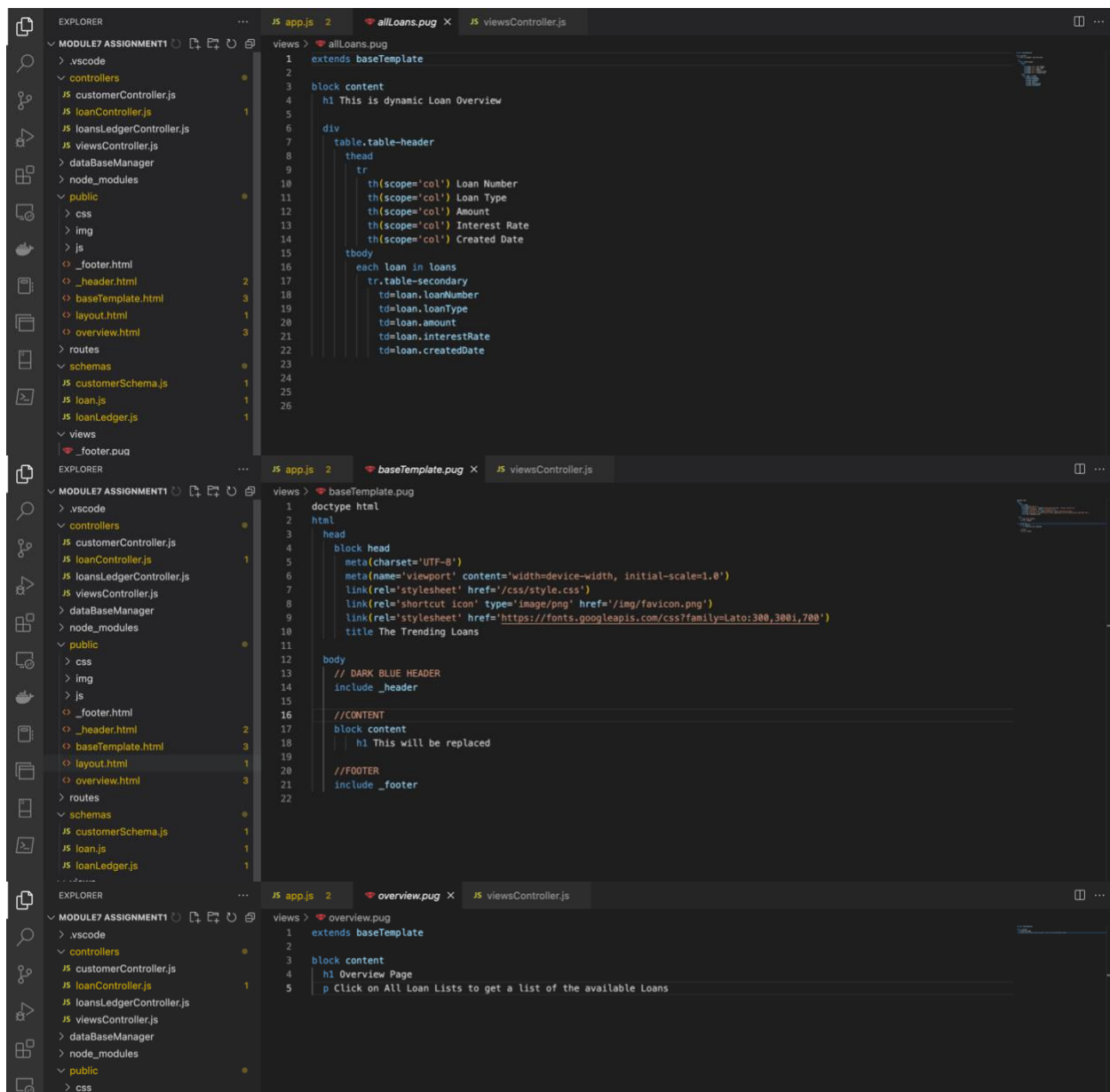
  JS app.js
  JS _footer.pug
  JS viewsController.js

views > _footer.pug
1 div.footer
2   div.footer__logo
3     img(src="/img/logo.png" alt="Course logo")
4   ul.footer__nav
5     li(a(href="#") About us)
6     li(a(href="#") Download Course information)
7     li(a(href="#") Sign up for the Course)
8     li(a(href="#") Careers)
9     li(a(href="#") Contact)
10
11   p.footer__copyright &copy; by Banks

EXPLORER
  MODULE7 ASSIGNMENT1
    .vscode
    controllers
      JS customerController.js
      JS loanController.js
      JS loansLedgerController.js
      JS viewsController.js
    dataBaseManager
    node_modules
    public
    css
    img
    js
    _footer.html
    _header.html
    baseTemplate.html
    layout.html
    overview.html
    routes
    schemas
      JS customerSchema.js
      JS loan.js
      JS loanLedger.js

  JS app.js
  JS _header.pug
  JS viewsController.js

views > _header.pug
1 header.header
2   nav.nav.nav--course
3     a.nav__el(href="/loan") All Loan Lists
4     form.nav__search
5       button.nav__search-btn
6         svg
7           use(xlink:href="/img/icons.svg#icon-search")
8       input(type="text" placeholder="Search Loans")
9   .header__logo
10    img(src="/img/logo.png" alt="Course logo")
11  nav.nav.nav--user
12    a.nav__el.nav__el(href="/login") Login
13    a.nav__el.nav__el(href="/signup") Sign Up
14    a.nav__el(href="/me")
15      img.nav__user-img(src="/img/users/user.png" alt="user photo")
16      span Customer
```

Using the Live Server

