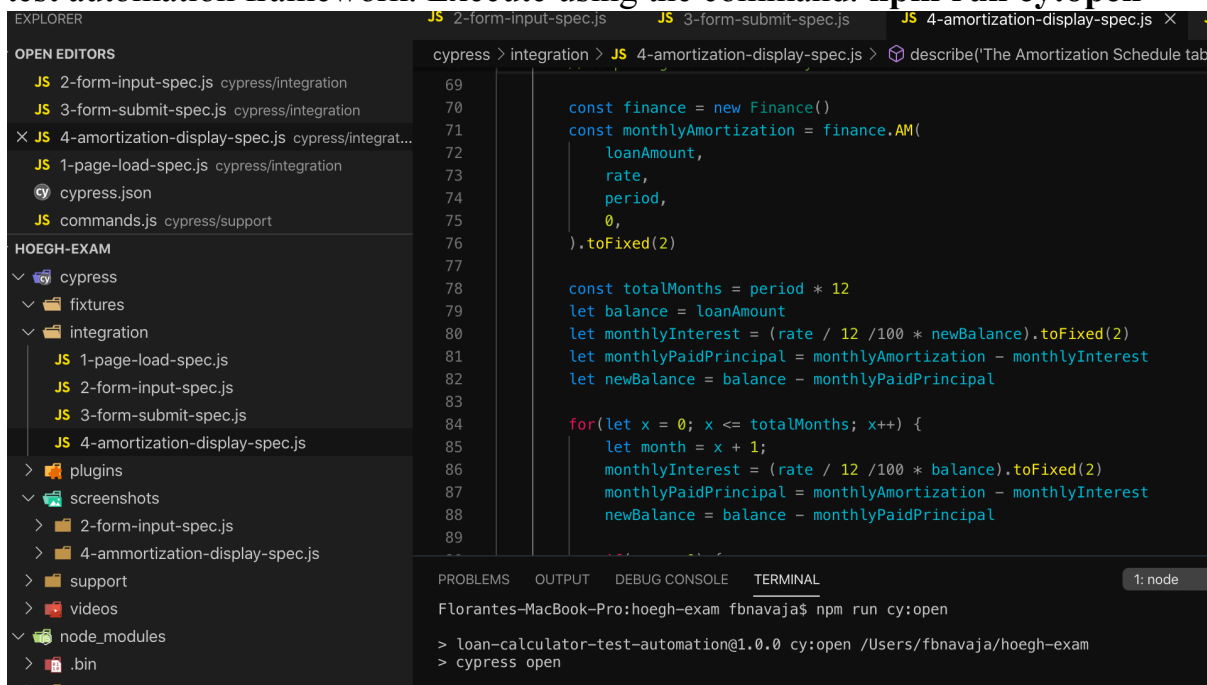


Test Automation Results

Using Cypress.io

Please find below the test result after running all integration tests via the cypress test automation framework. Execute using the command: **npm run cy:open**

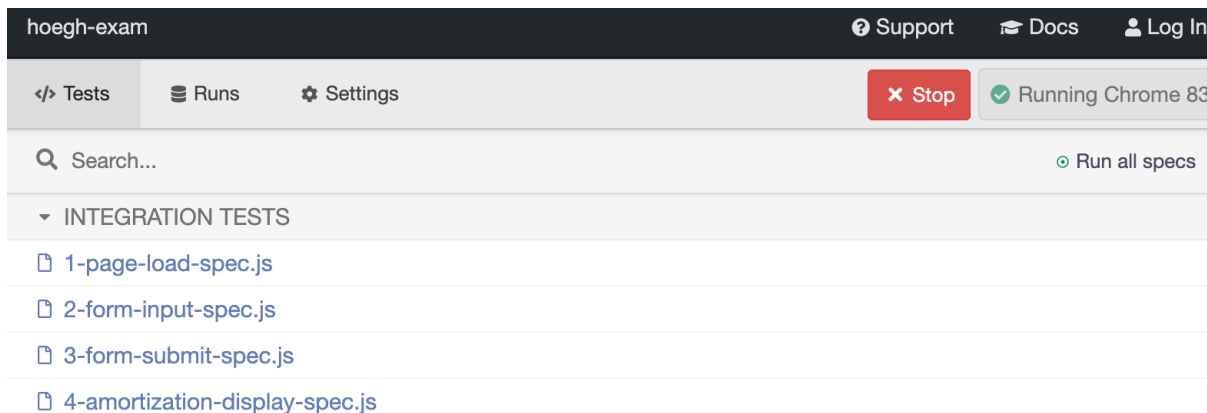


The screenshot shows the VS Code editor interface. The Explorer sidebar on the left displays the project structure for 'HOEGH-EXAM', including a 'cypress' folder with 'integration' and 'support' subfolders. The Open Editors pane shows several Cypress test files, with '4-amortization-display-spec.js' selected. The main editor area displays the content of this file, which includes a 'describe' block and a 'finance' object. The terminal window at the bottom shows the command 'npm run cy:open' being executed, and the output indicates that the tests are running successfully.

```
const finance = new Finance()
const monthlyAmortization = finance.AM(
  loanAmount,
  rate,
  period,
  0,
).toFixed(2)

const totalMonths = period * 12
let balance = loanAmount
let monthlyInterest = (rate / 12 / 100 * newBalance).toFixed(2)
let monthlyPaidPrincipal = monthlyAmortization - monthlyInterest
let newBalance = balance - monthlyPaidPrincipal

for(let x = 0; x <= totalMonths; x++) {
  let month = x + 1;
  monthlyInterest = (rate / 12 / 100 * balance).toFixed(2)
  monthlyPaidPrincipal = monthlyAmortization - monthlyInterest
  newBalance = balance - monthlyPaidPrincipal
```



The screenshot shows the Cypress web interface. The top bar includes links for 'Support', 'Docs', and 'Log In'. The main area displays the test results for the 'hoegh-exam' project. The 'Tests' tab is selected, showing a list of integration tests. The '4-amortization-display-spec.js' test is highlighted, indicating it passed. The 'Runs' tab shows the test results for the selected test, including a 'Stop' button and a 'Running Chrome 83' status.

hoegh-exam Support Docs Log In

Tests Runs Settings Stop Running Chrome 83

Search... Run all specs

INTEGRATION TESTS

- 1-page-load-spec.js
- 2-form-input-spec.js
- 3-form-submit-spec.js
- 4-amortization-display-spec.js

I.

< Tests	✓ 23	✗ 22	○ --	123.71	○ ↑↓
All Specs					

▼ The Loan Calculator page loads

- ✓ The browser navigates to the default page [/]

▼ The page

- ✓ shows a `Loan Calculator` header text of type h1
- ✓ shows a loan calculator form
- ✓ does not display the Amortization Schedule table

II.

▼ The Loan Calculator Form

▼ Fields' labels

- ✓ shows correct form loan amount label
- ✗ shows correct form loan period field label
- ✗ shows correct form loan rate field label
- ✓ shows correct form submit button label

▶ Loan Amount input

▼ Loan Period input

- ✓ accepts numerical value
- ✓ does not accept alphabet characters

III.

▼ The Loan Calculator Form Submit

▼ Form is submitted

- ✓ does not submit on negative loan amount
- ✓ does not submit on zero loan amount
- ✓ does not submit on negative period
- ✓ does not submit on zero period
- ✓ submits on valid loan and period inputs


IV.

The requirement has 3.5% as the fixed interest rate. But the current application version assumes 7.5%. Likewise the computation for the interest and remaining amount or balance is incorrect.




The testing formula was validated against multiple sources of loan calculator found in the internet.

▼ The Amortization Schedule table

▼ Layout

- ✓ displays the Amortization Schedule table
- ✓ the table displays 4 columns
- ✓ column 1 header displays MONTH text
- ✓ column 2 header displays INSTALLMENT text
- ✓ column 3 header displays INTEREST text
- ✗ column 4 header displays REMAINING AMOUNT text 

▼ Row Data

- ✓ displays 12 rows for period value = 1
- ✗ displays INSTALLMENT value of [84.92] for loan amount = [1000], period = [1] and month =[1] 
- ✗ displays INTEREST value of [2.92] for loan amount = [1000], period = [1] and month =[1] 
- ✗ displays REMAINING BALANCE value of [918] for loan amount = [1000], period = [1] and month =[1] 

Current Home Loan Application Version result – Assumed the 7.5% fixed interest rate

← → ↻ ⓘ localhost:38080

Loan Calculator

Loan amount Loan period (years)

MONTH	INSTALLMENT	INTEREST	REMAINING AMOUNT
1	86.76	5.96	954.36
2	86.76	5.42	867.60
3	86.76	4.88	780.84
4	86.76	4.34	694.08
5	86.76	3.80	607.32
6	86.76	3.25	520.56
7	86.76	2.71	433.80
8	86.76	2.17	347.04
9	86.76	1.63	260.28
10	86.76	1.08	173.52
11	86.76	0.54	86.76
12	86.76	0.00	0.00

Internet Source 1 - <https://www.bankrate.com/calculators/mortgages/loan-calculator.aspx>

🔒 bankrate.com/calculators/mortgages/loan-calculator.aspx

Loan amount

Loan term in years

Or

Loan term in months

Interest rate per year

%

Monthly Payments

\$ 84.92

Total Principal Paid \$1,000

Total Interest Paid \$19.06

[Hide amortization schedule](#)

ADD EXTRA PAYMENTS ▼

Start Date

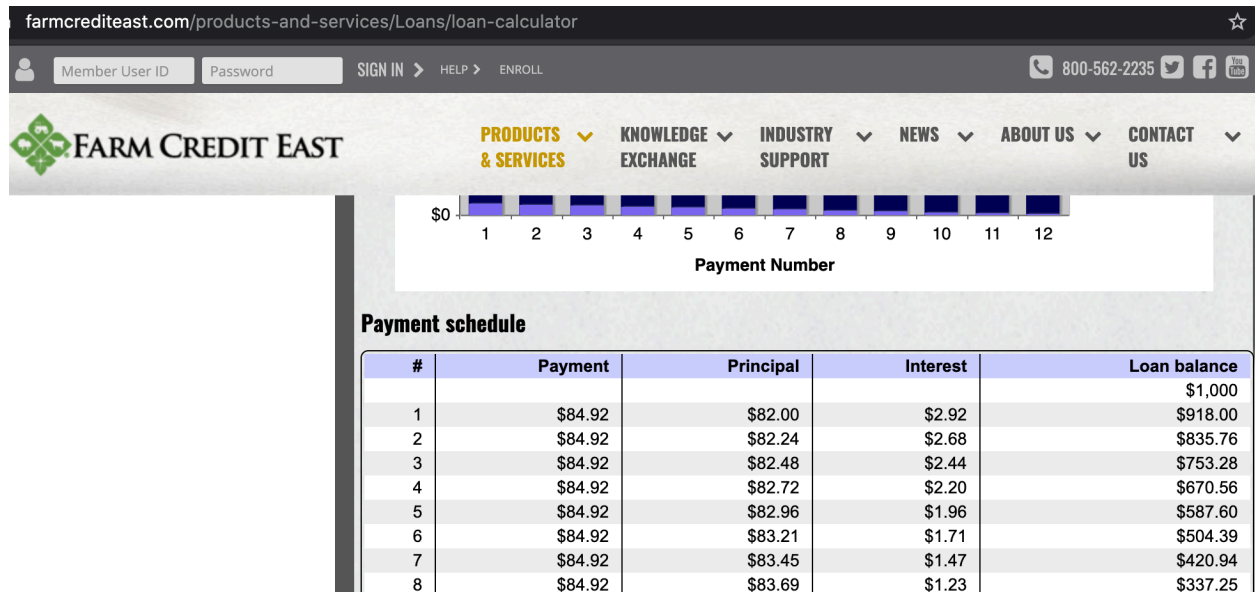
Estimated Payoff Date

June 22, 2021

Amortization Schedule

Payment Date	Payment	Principal	Interest	Total Interest	Balance
Jul 2020	\$84.92	\$82.00	\$2.92	\$2.92	\$918.00
Aug 2020	\$84.92	\$82.24	\$2.68	\$5.59	\$835.75
Sep 2020	\$84.92	\$82.48	\$2.44	\$8.03	\$753.27
Oct 2020	\$84.92	\$82.73	\$2.19	\$10.23	\$670.54

Internet Source 2 - <https://www.farmcrediteast.com/products-and-services/Loans/loan-calculator>



V.
Videos created

