



BLOGGING PLATFORM

CONNECTCO



SOFTWARE ENGINEERING (IT - 314)

Prof. Saurabh Tiwari

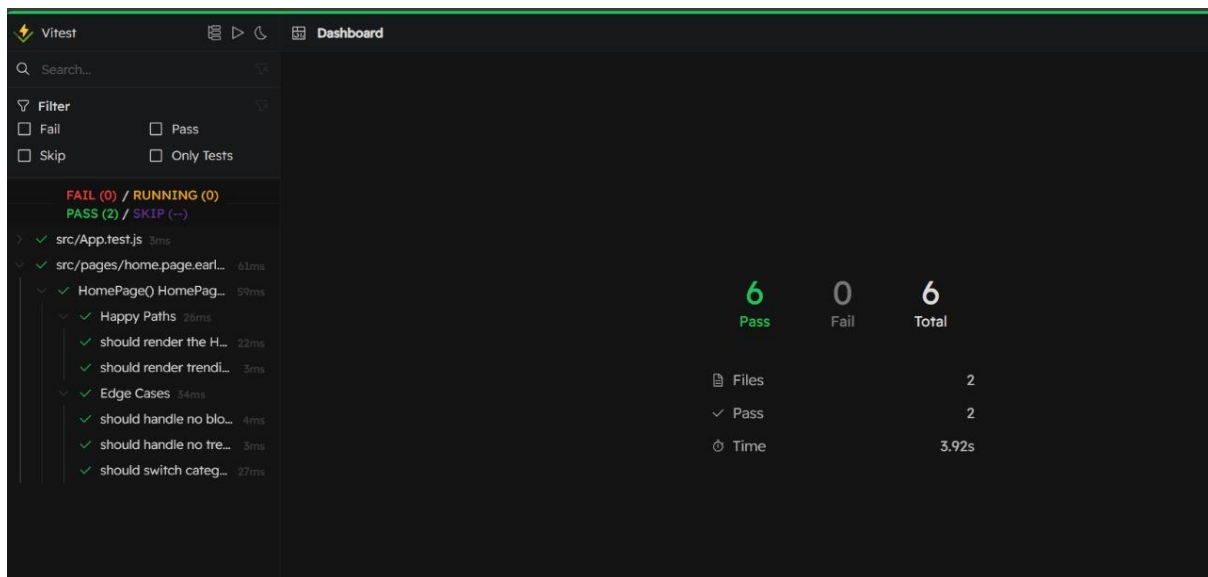
Group 23

- 202201287 GHORI ZEEL JIVRAJBHAI (**Group Leader**)
- 202201291 PATEL NAISARGI NILANGBHAI
- 202201272 SIDDHANT GUPTA
- 202201322 ADITYA IYER
- 202201338 KRITARTH JOSHI
- 202201312 DESAI PRITISH
- 202201299 AKSHAT JINDAL
- 202201324 KASHYAP GAJERA
- 202201267 CHAUHAN HEMAN JASHVANTBHAI
- 202201265 CHAUDHARI PRACHI HASMUKHBHAI

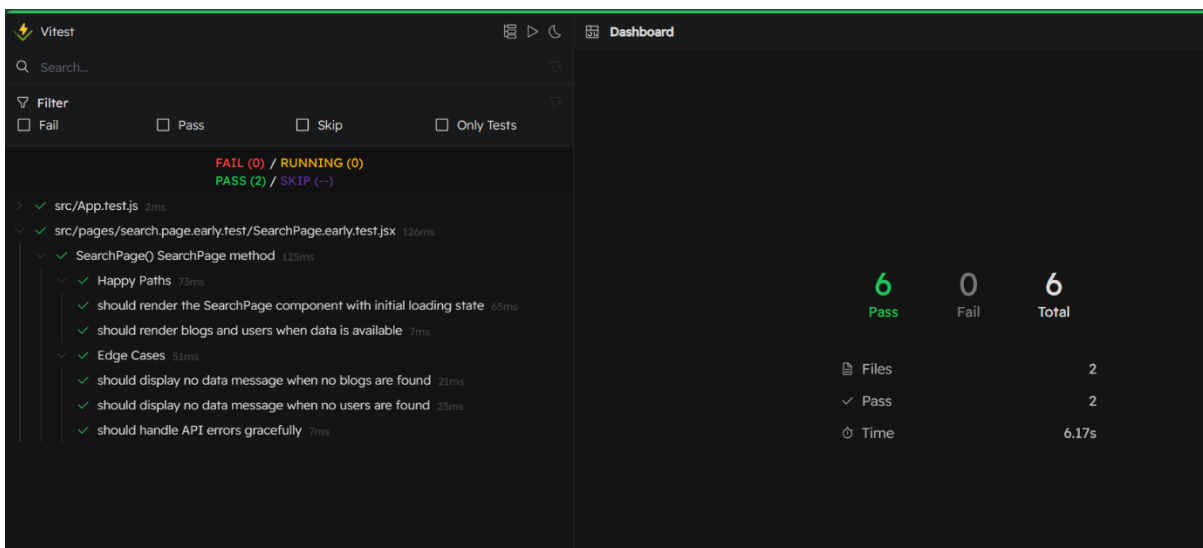
Frontend Unit Testing

Pages:

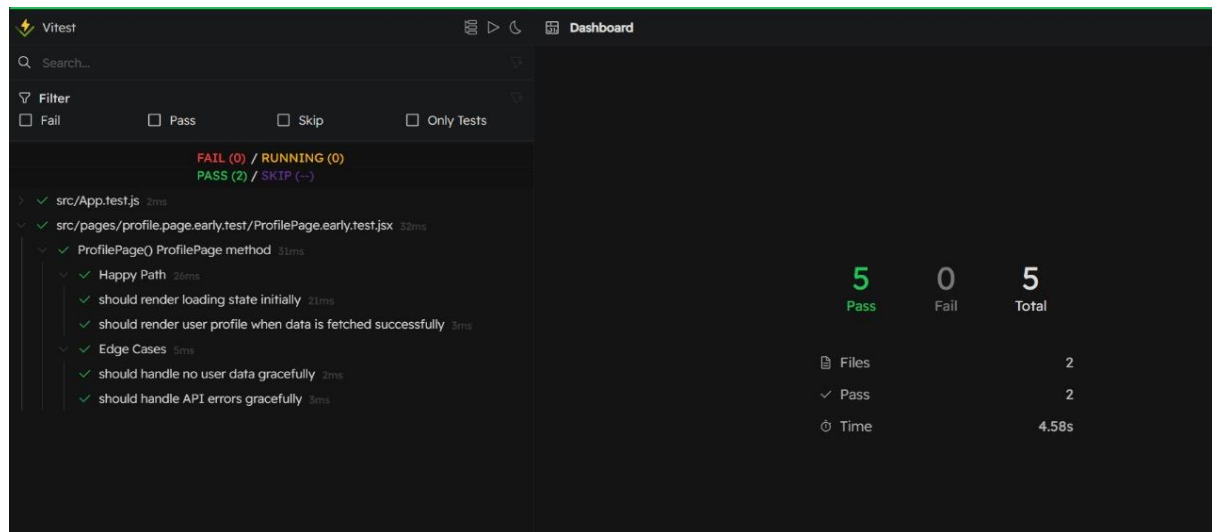
- Home Page



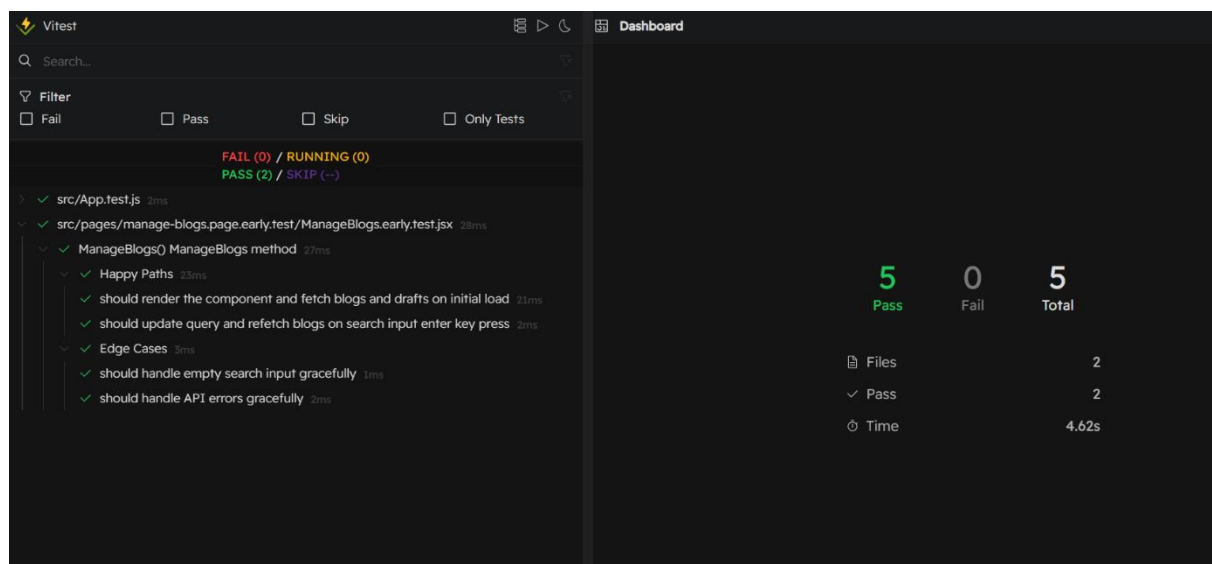
- Search Page



- Profile Page



- ManageBlog Page



- Editor Pages

The screenshot displays the Jest test runner interface. On the left, a list of test files is shown, with the selected file being `src/pages/editor.pages.early.test/Editor.early.test.jsx`. Below this, a list of 7 test cases is displayed, all of which passed successfully, indicated by green checkmarks. The test cases are:

- ✓ `should render BlogEditor when editorState is 'editor' and loading is false` (21ms)
- ✓ `should render PublishForm when editorState is not 'editor'` (3ms)
- ✓ `should render Loader when loading is true` (2ms)
- ✓ `should navigate to /signin if access_token is null` (4ms)
- ✓ `should handle axios error gracefully and set blog to null` (2ms)
- ✓ `should handle missing blog_id by setting loading to false` (2ms)

On the right side of the interface, a summary of the test results is provided:

- 7 Pass** (indicated by a large green '7')
- 0 Fail** (indicated by a large grey '0')
- 7 Total** (indicated by a large green '7')

Below the summary, a table shows the overall performance metrics:

Files	2
✓ Pass	2
⌚ Time	3.66s

- Blog Page

Vitest

Dashboard

Filter

☐ Fail
 ☐ Pass
 ☐ Skip
 ☐ Only Tests

FAIL (0) / RUNNING (0)

PASS (2) / SKIP (-)

src/App.test.js 30ms

src/pages/blog.page.early.test/BlogPage.early.test.jsx 104ms

BlogPage() BlogPage method 103ms

Happy Path 46ms

Edge Cases 57ms

should handle no similar blogs gracefully 22ms

should handle API errors gracefully 35ms

6

Pass

0

Fail

6

Total

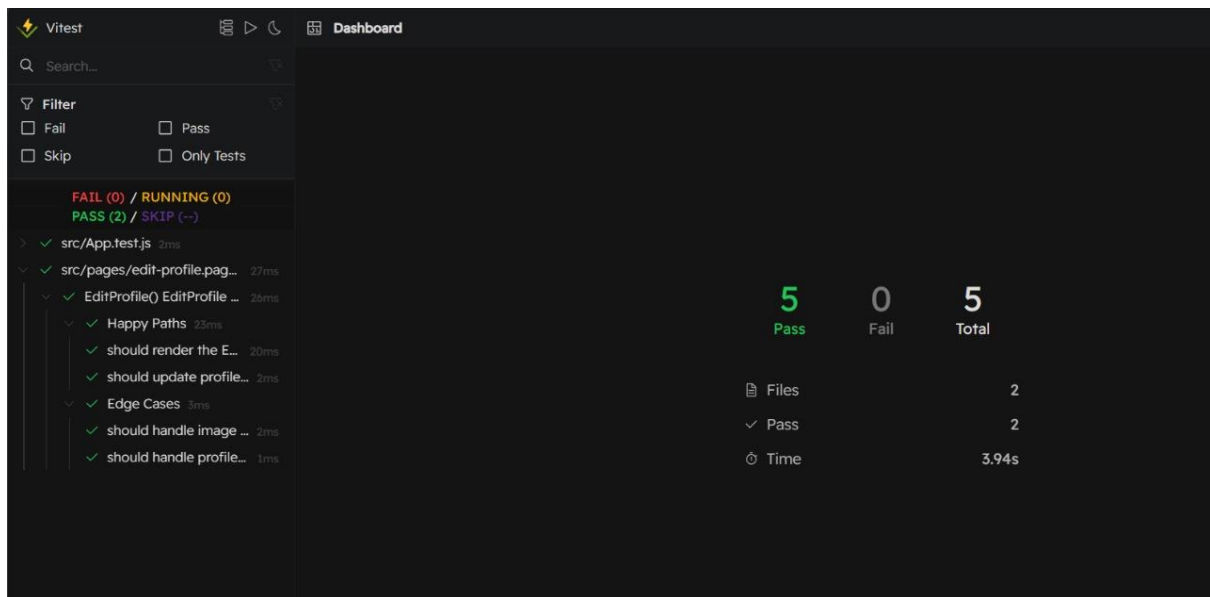
Files 2

Pass 2

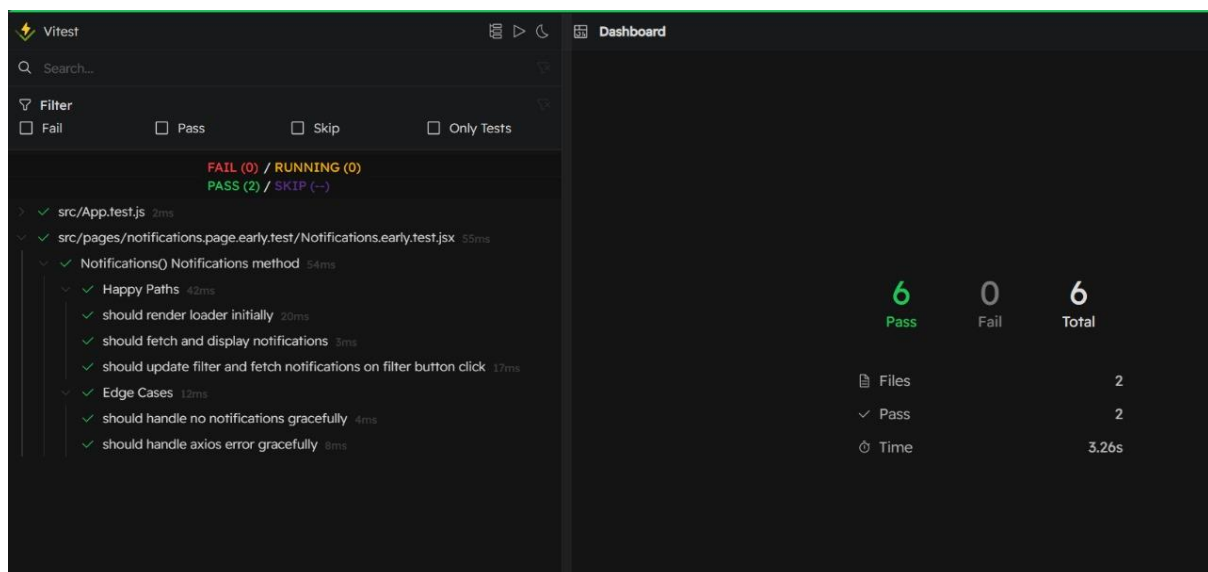
Errors 1

Time 5.53s


- Edit-Profile Page



- Notifications Page



- Change_Password Page

 Vitest

Filter

☐ Fail☐ Pass☐ Skip☐ Only Tests

FAIL (0) / RUNNING (0)
PASS (2) / SKIP (-)

> ✓ src/App.test.js 2ms

> ✓ src/pages/change-password.page.early.test/ChangePassword.early.test.jsx 31ms

> ✓ ChangePassword() ChangePassword method 31ms

> ✓ Happy Paths 21ms

> ✓ Edge Cases 9ms

Dashboard

5
Pass

0
Fail

5
Total

Files

2

✓ Pass

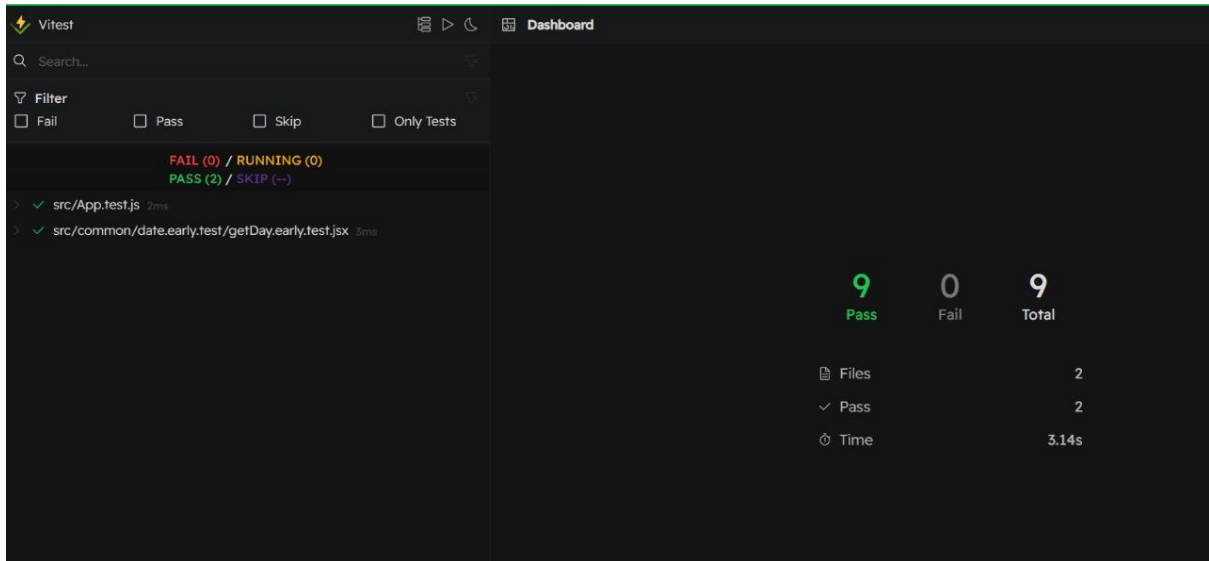
2

⌚ Time

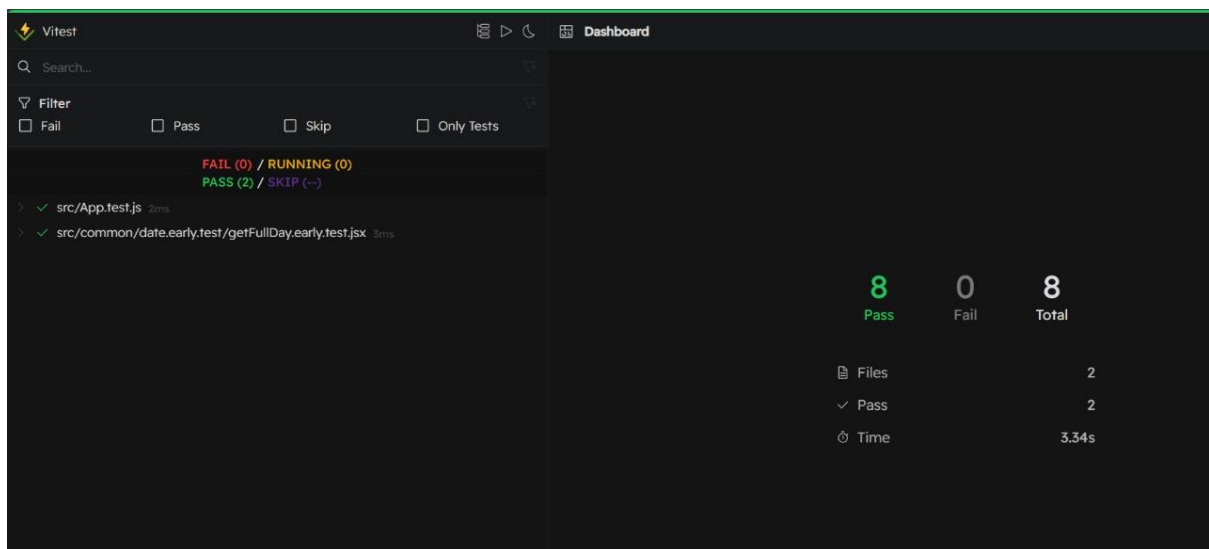
3.46s

Common:

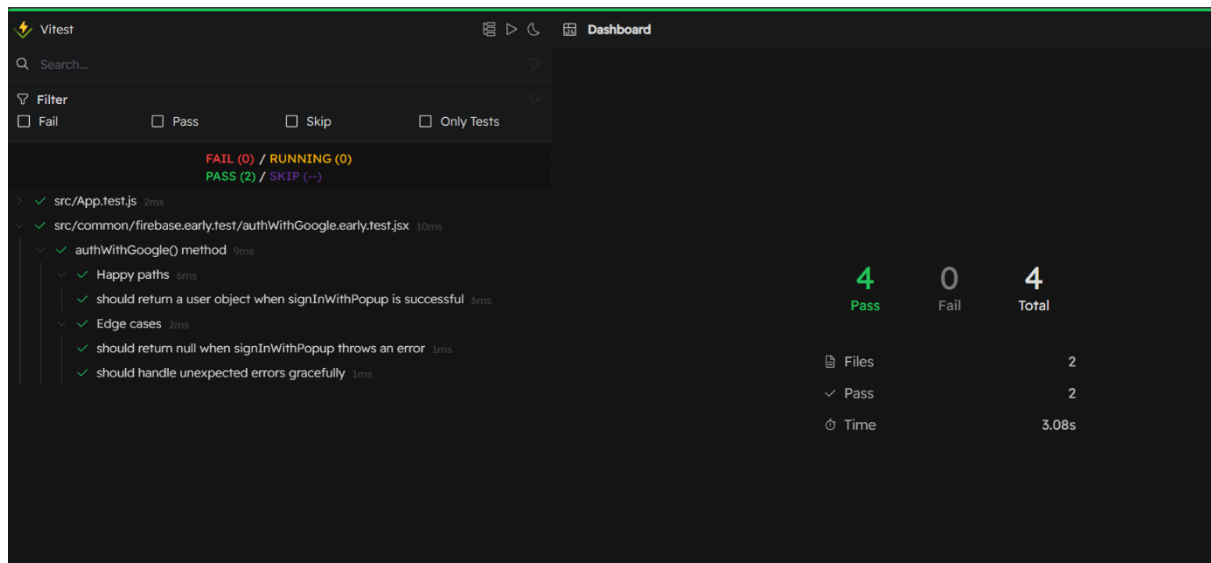
- Date : getDay



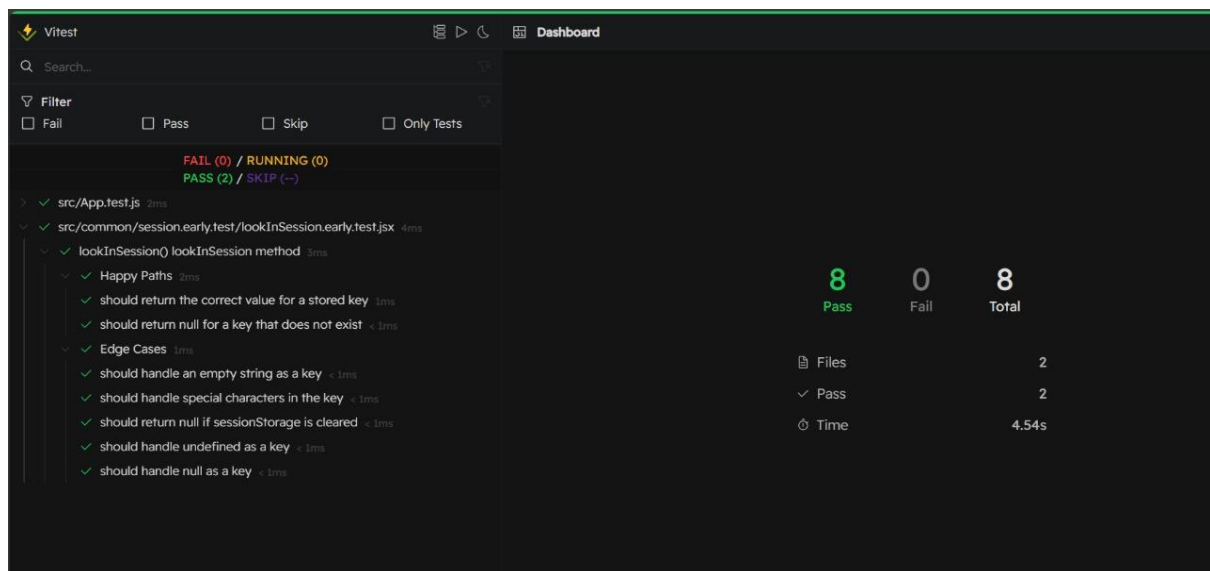
- Date : getFULLDay



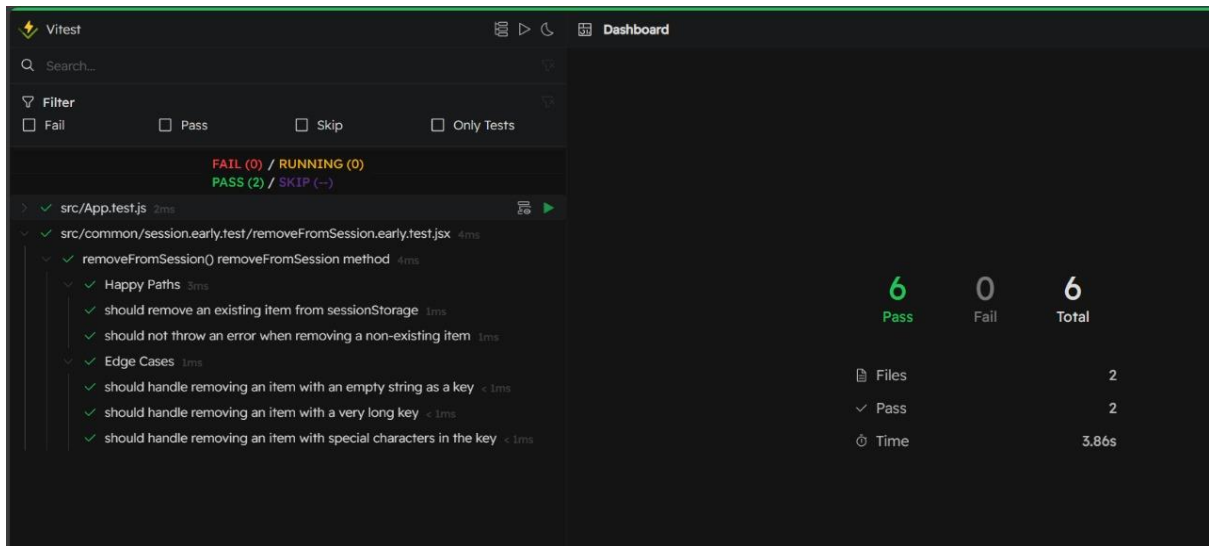
- AuthwithGoogle



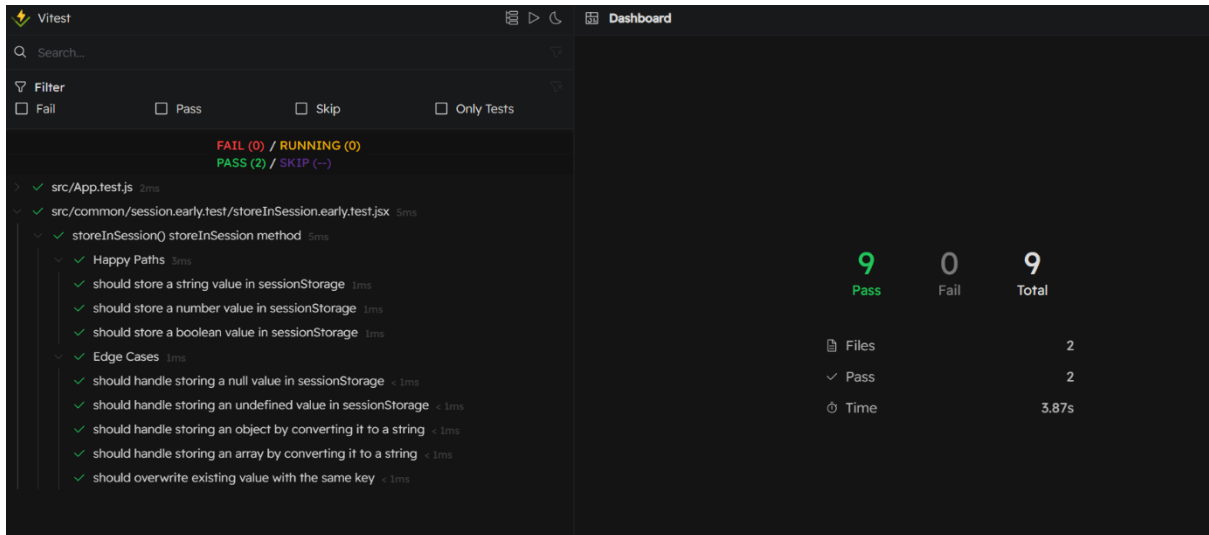
- Session: lookinSession



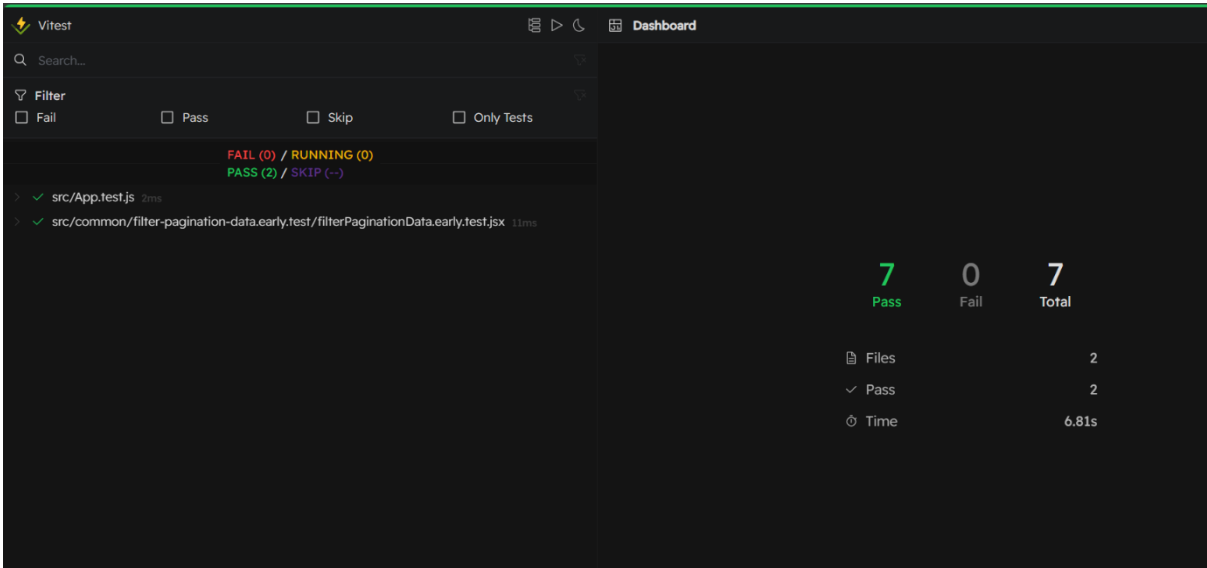
- Session : RemoveFromSession



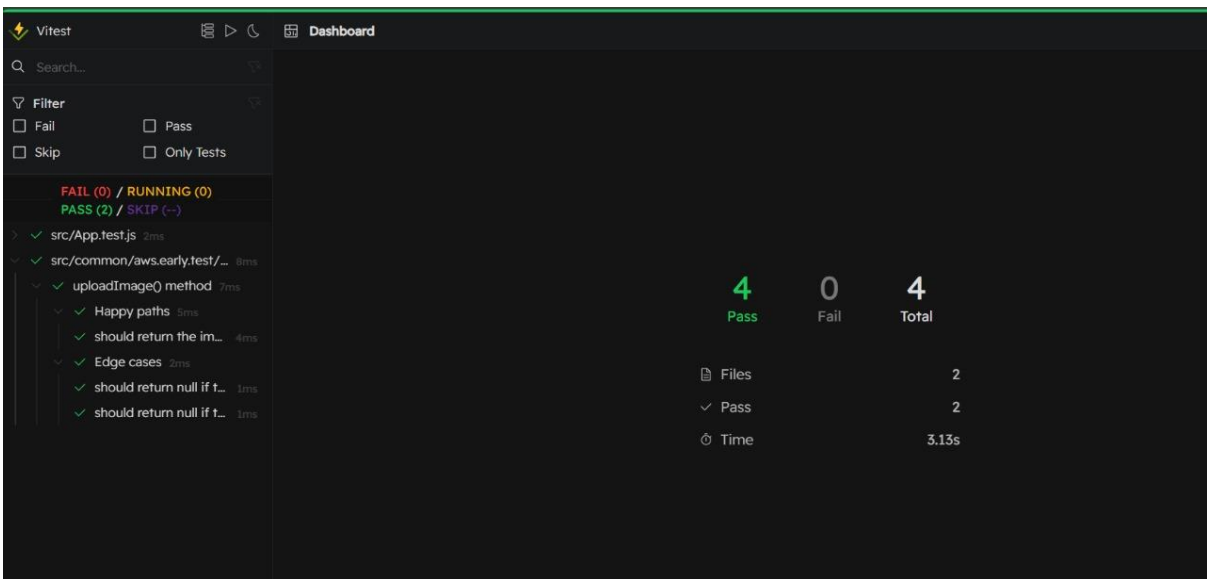
- Session: storeInSession



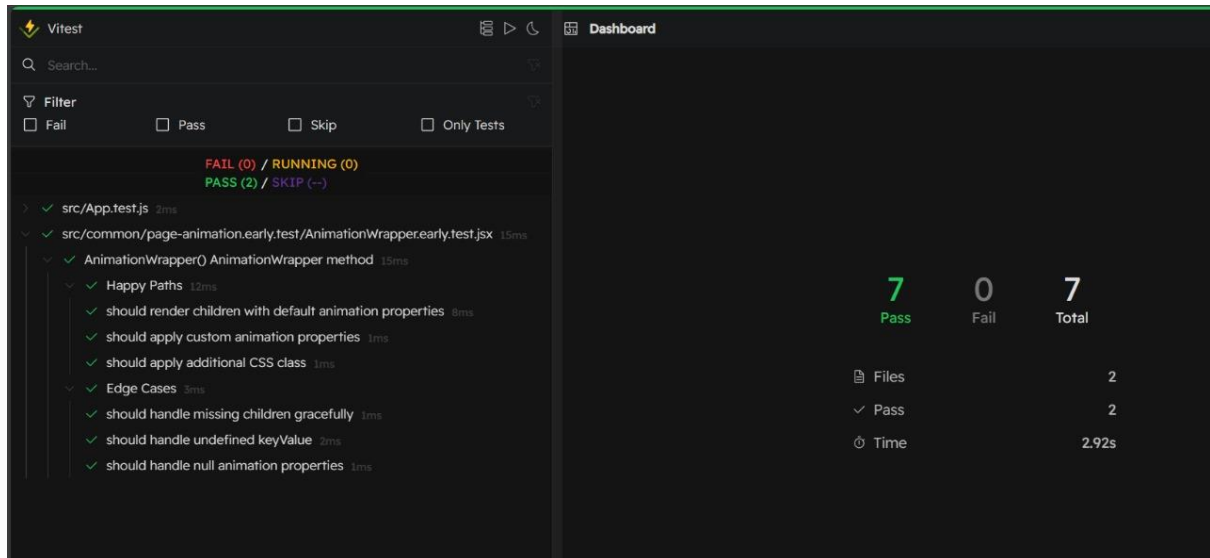
- Filter Pagination



- UploadImage

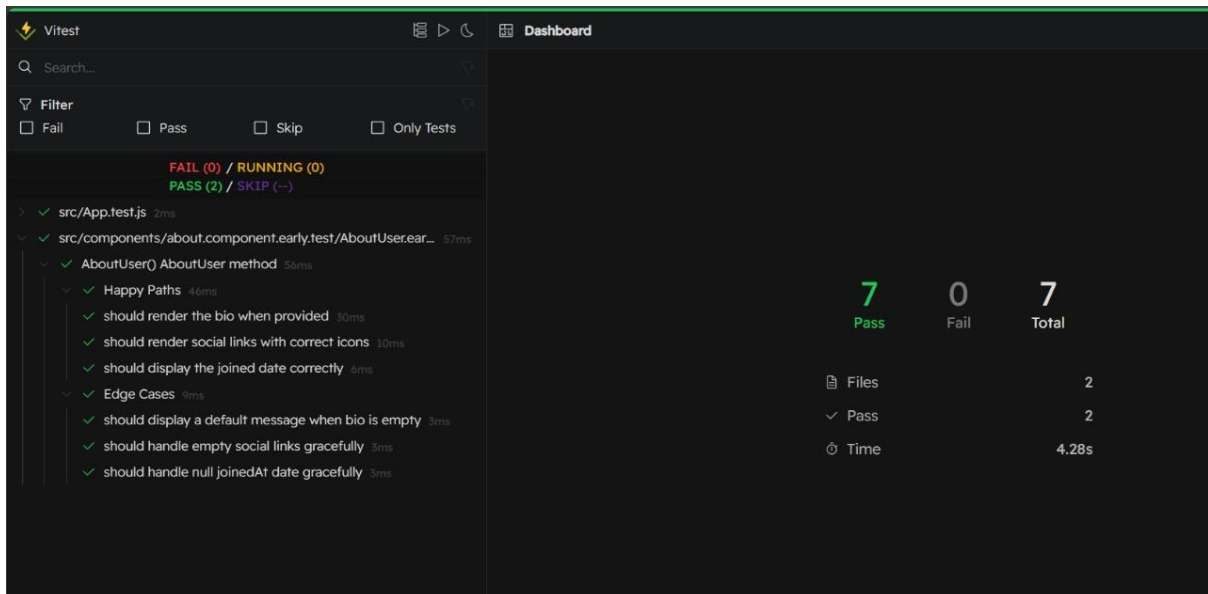


- AnimationWrapper

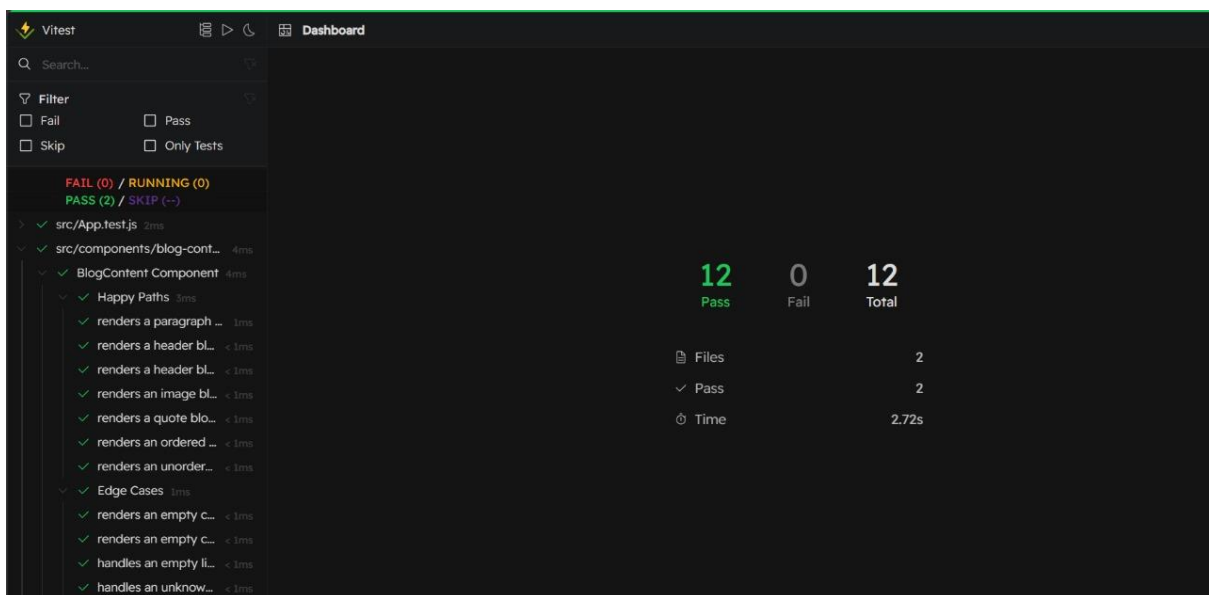


COMPONENTS

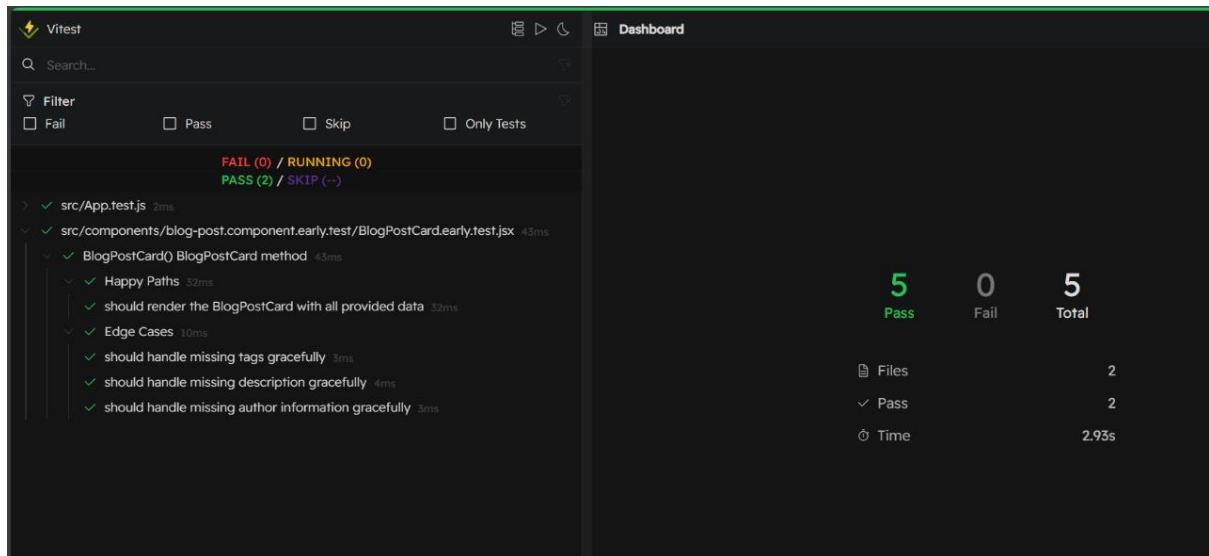
- AboutUser



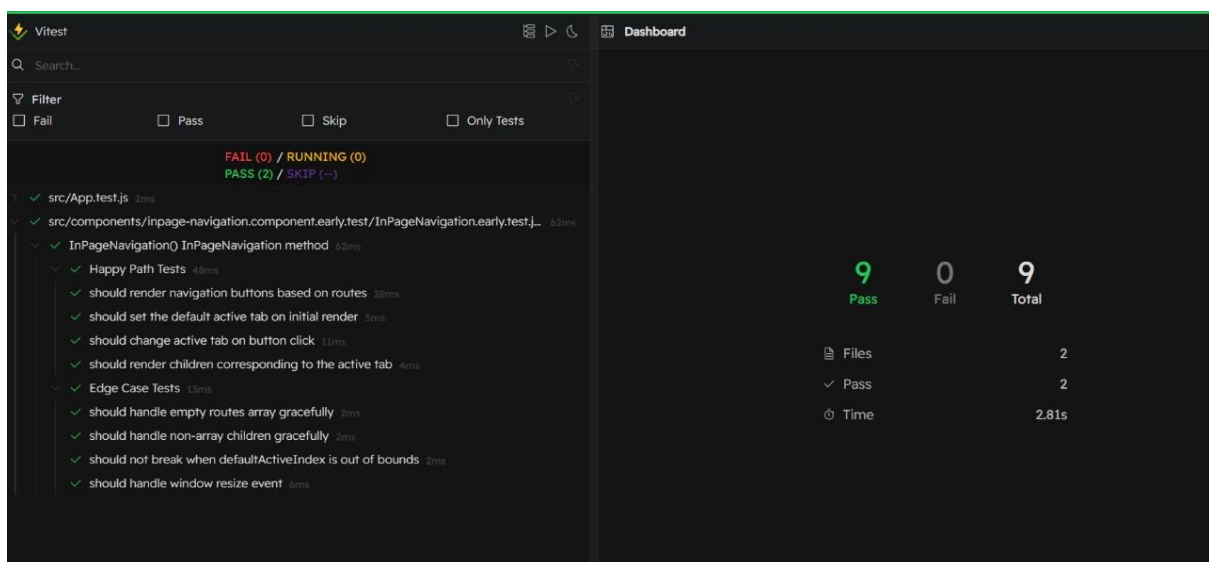
- Blog-content-Component



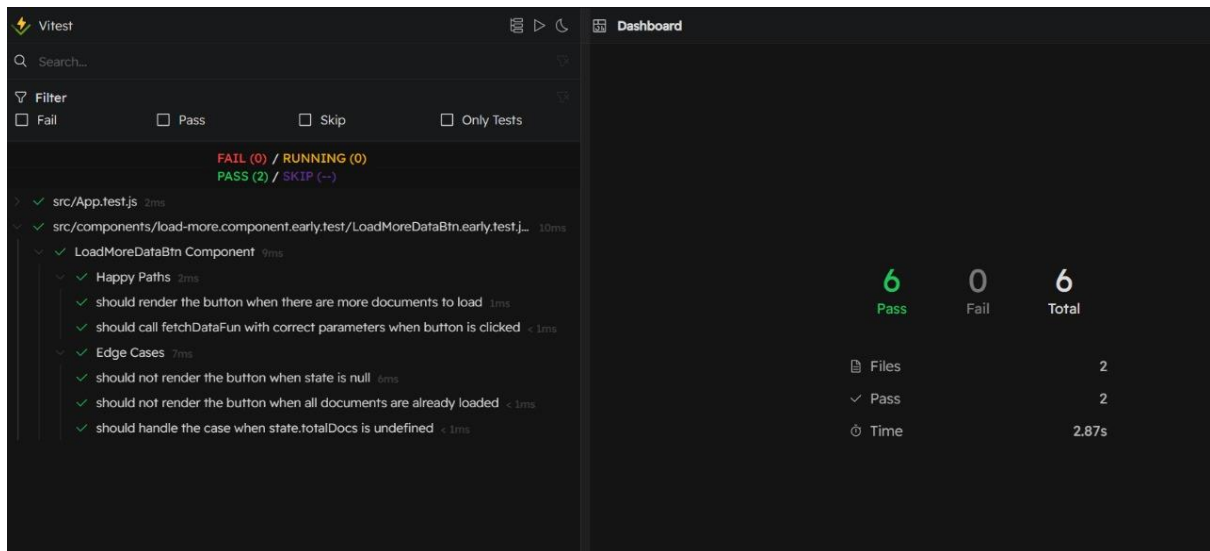
- Blog-Post-Component



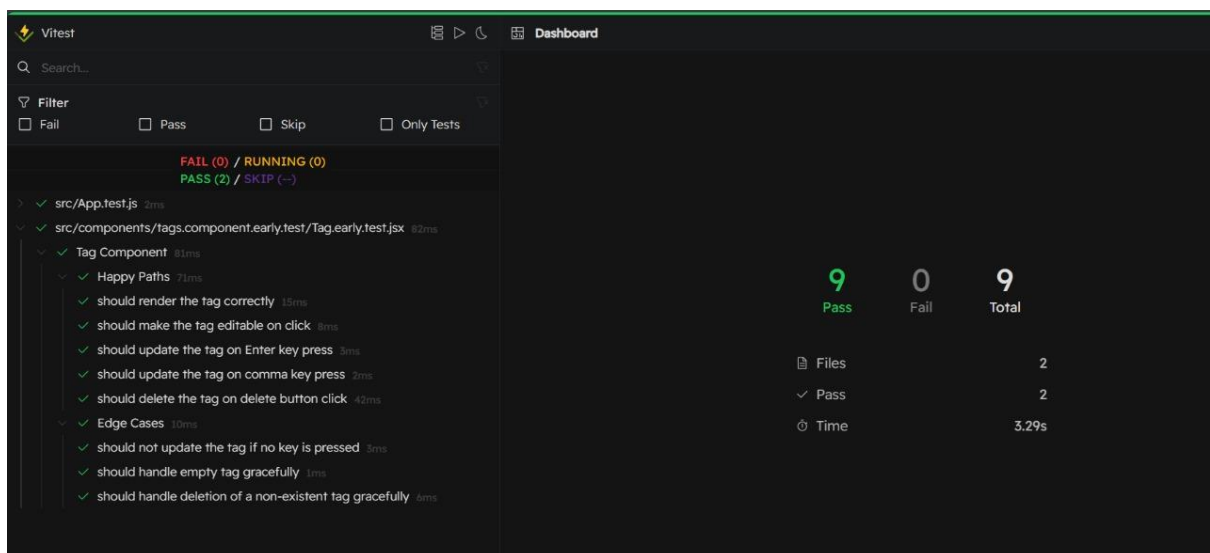
- Inpage-navigation-Component



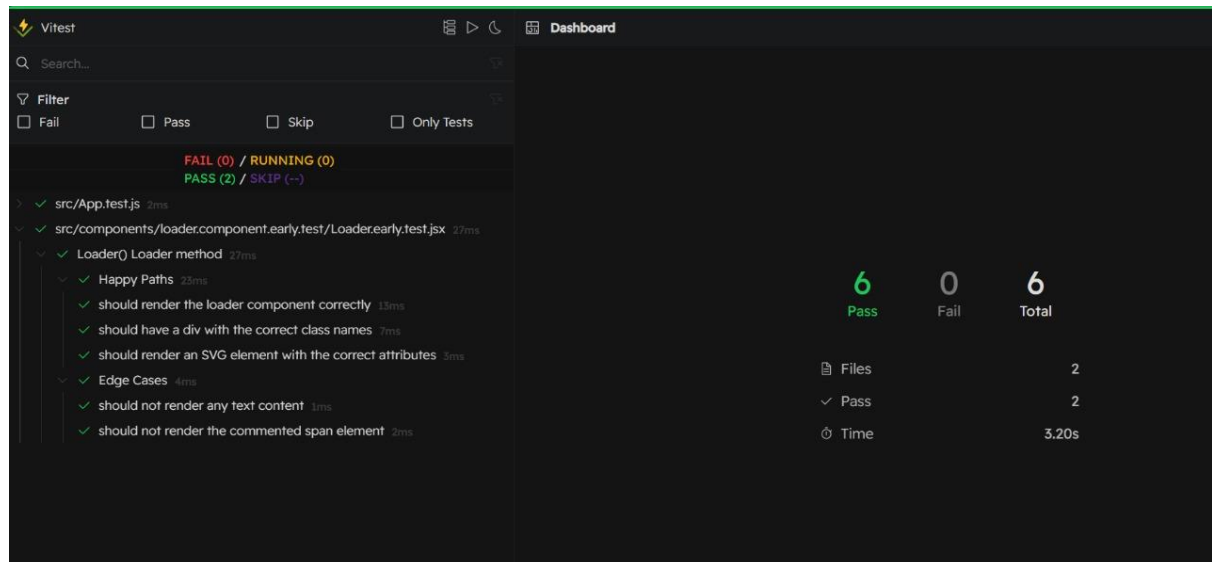
- Load-More-Component



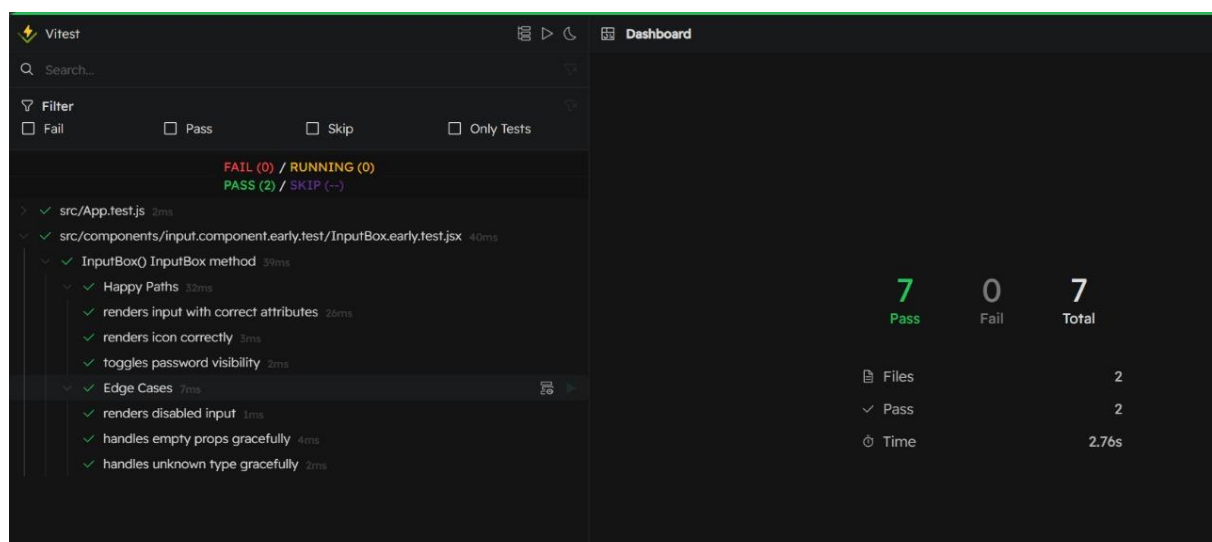
- Tag-Component



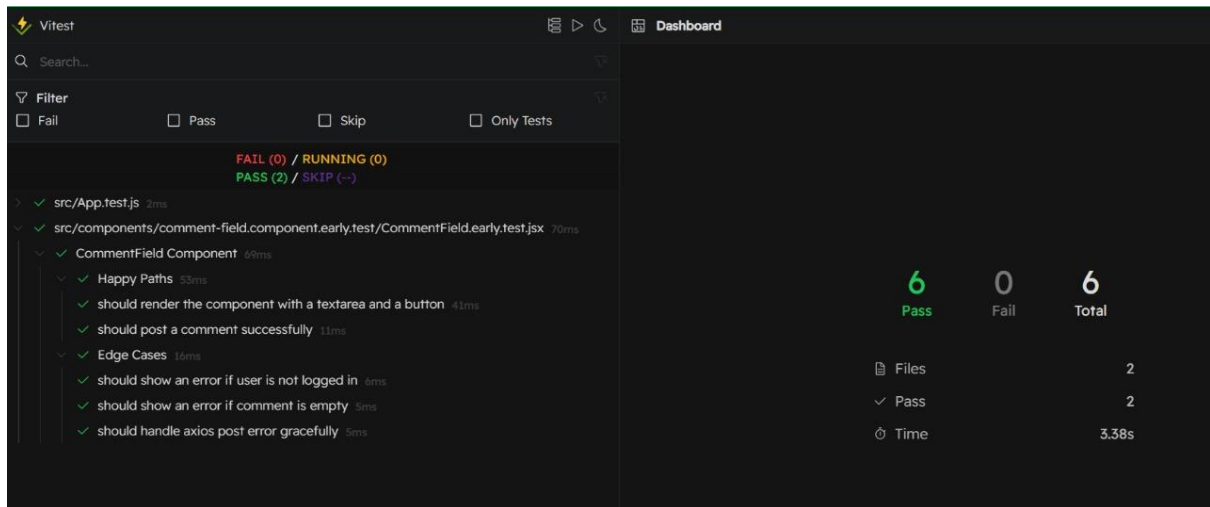
- Loader



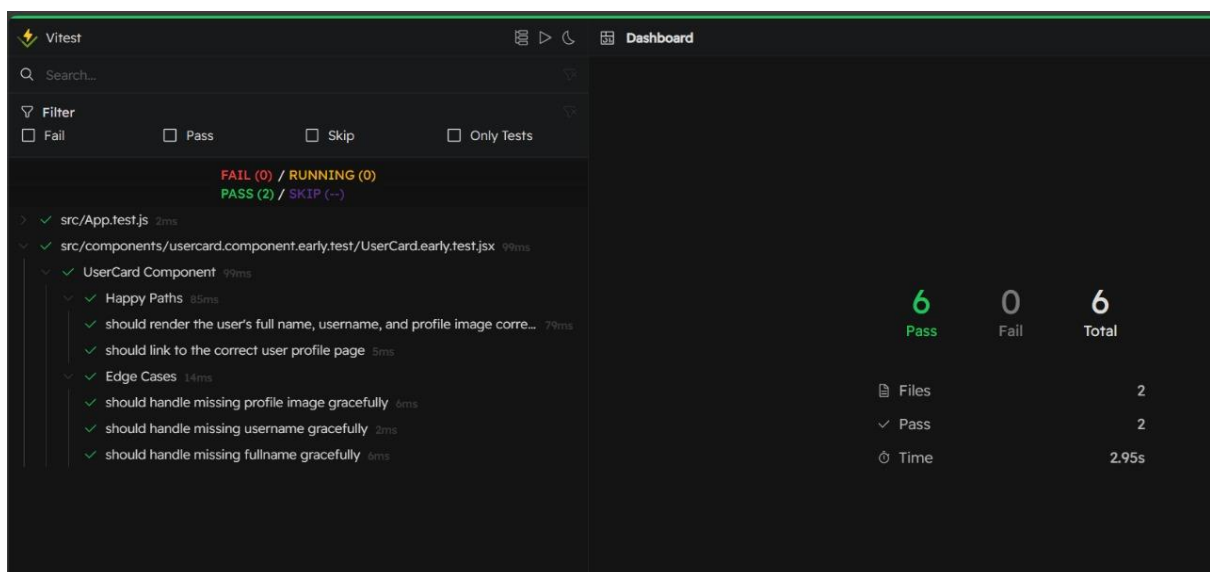
- Input-Component



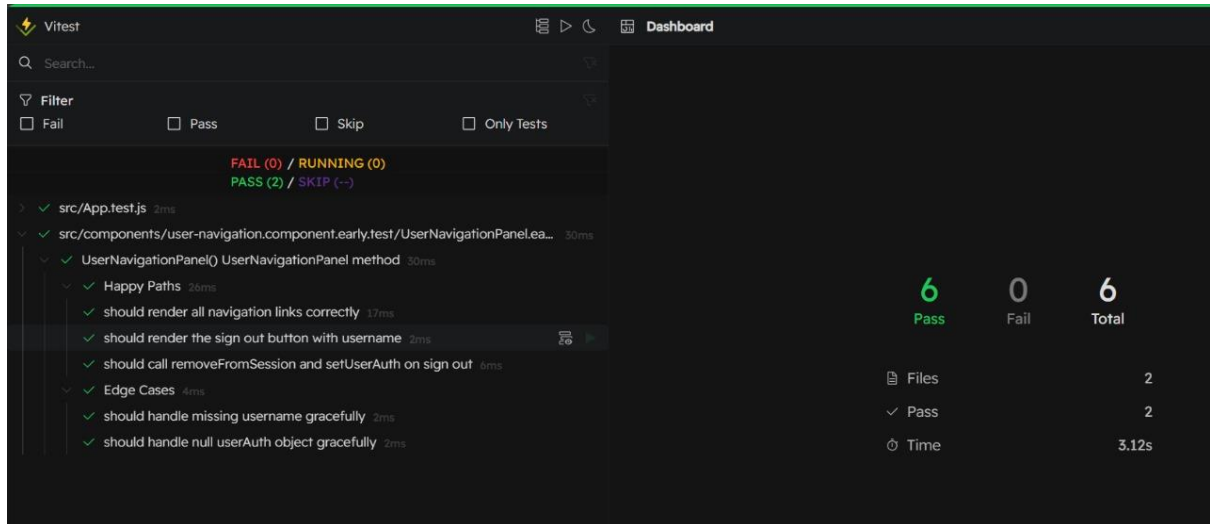
- Comment-Field



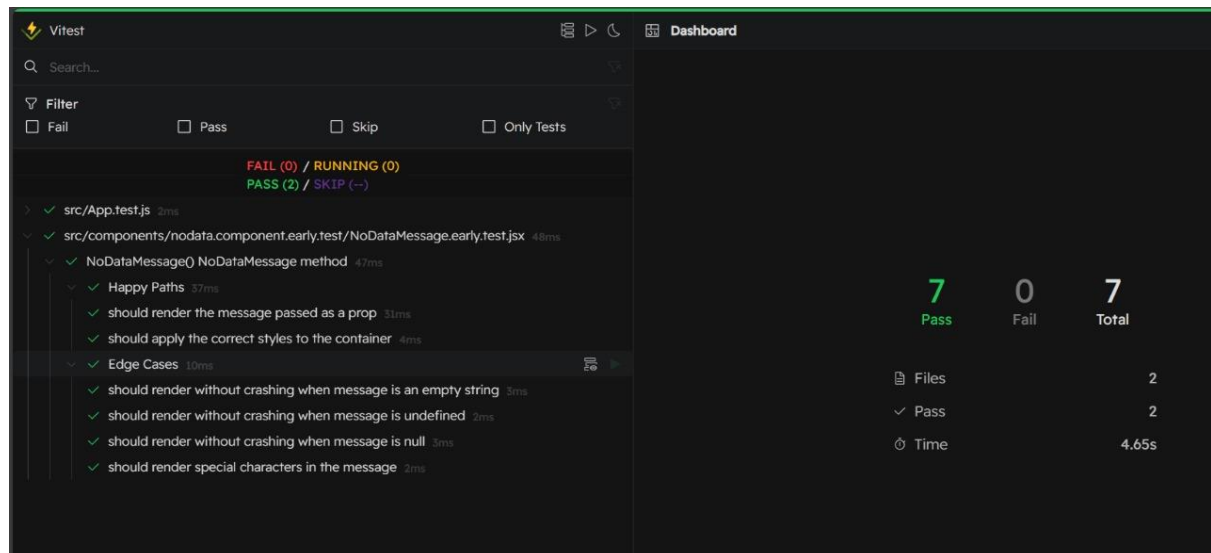
- UserCard



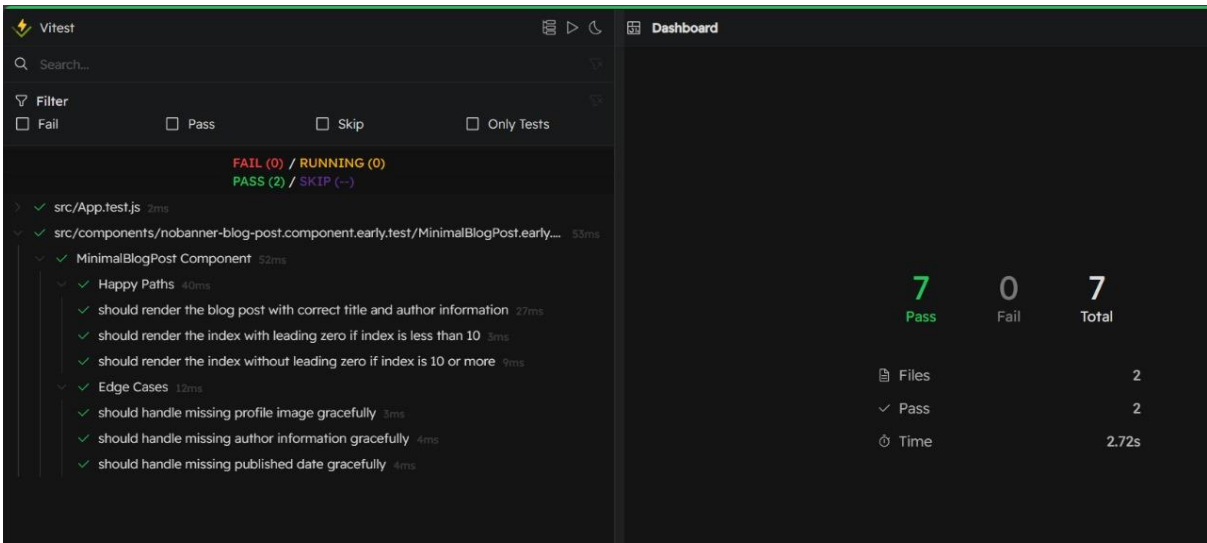
- User NavigationPanel



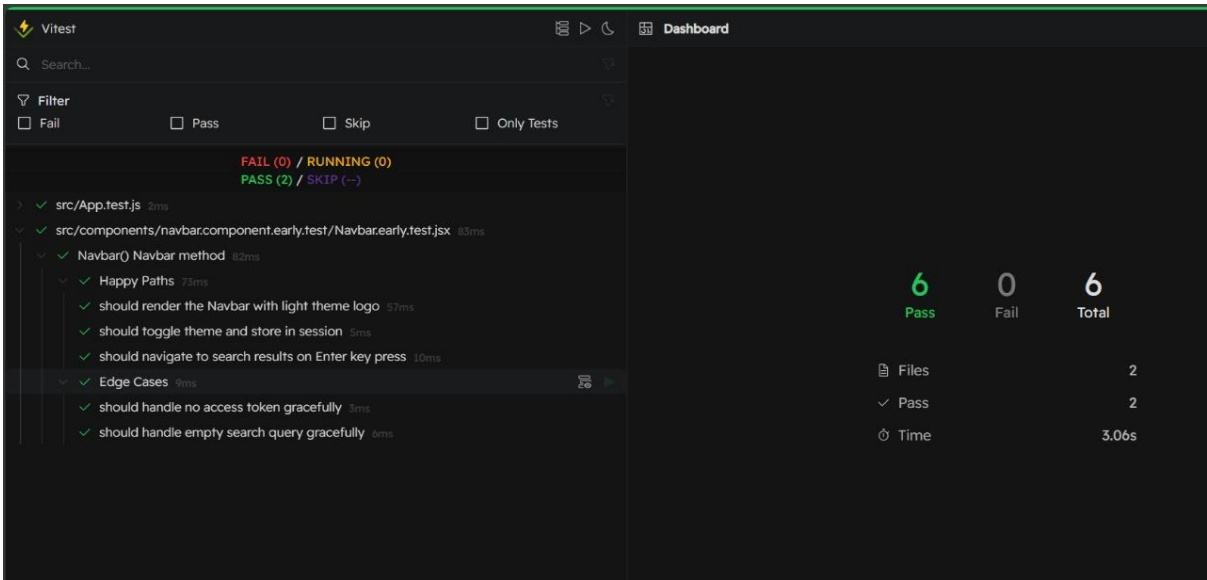
- NoData Component



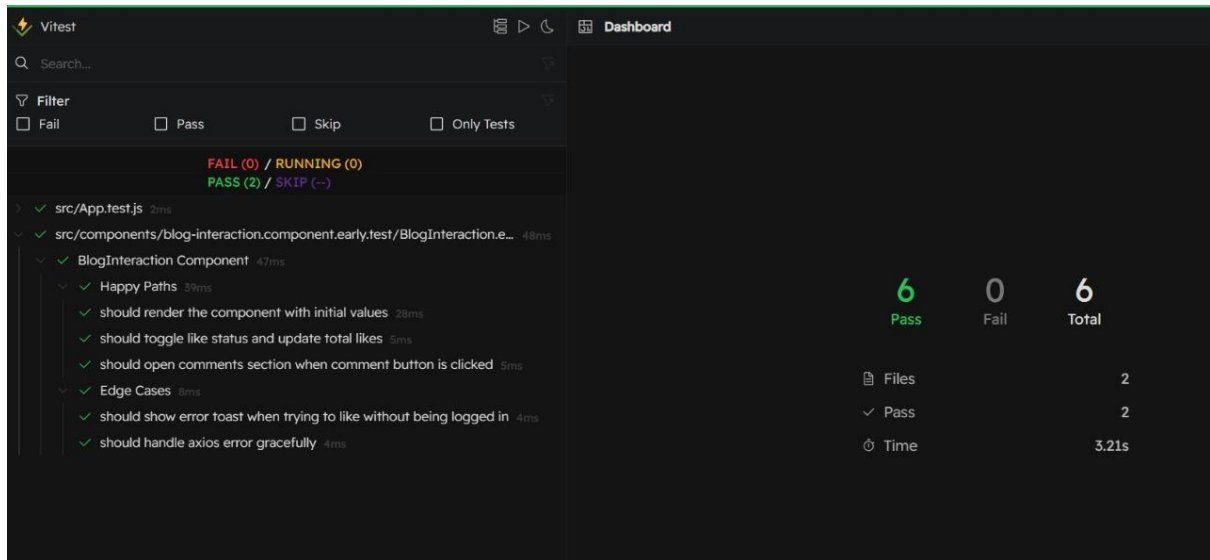
- NoBanner BlogPost



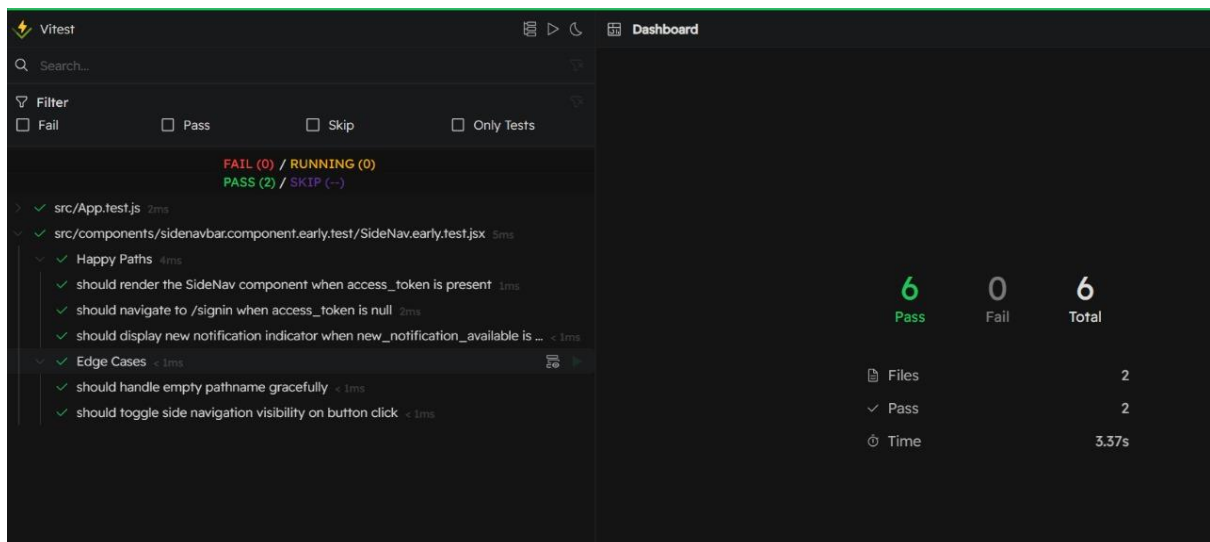
- Navbar



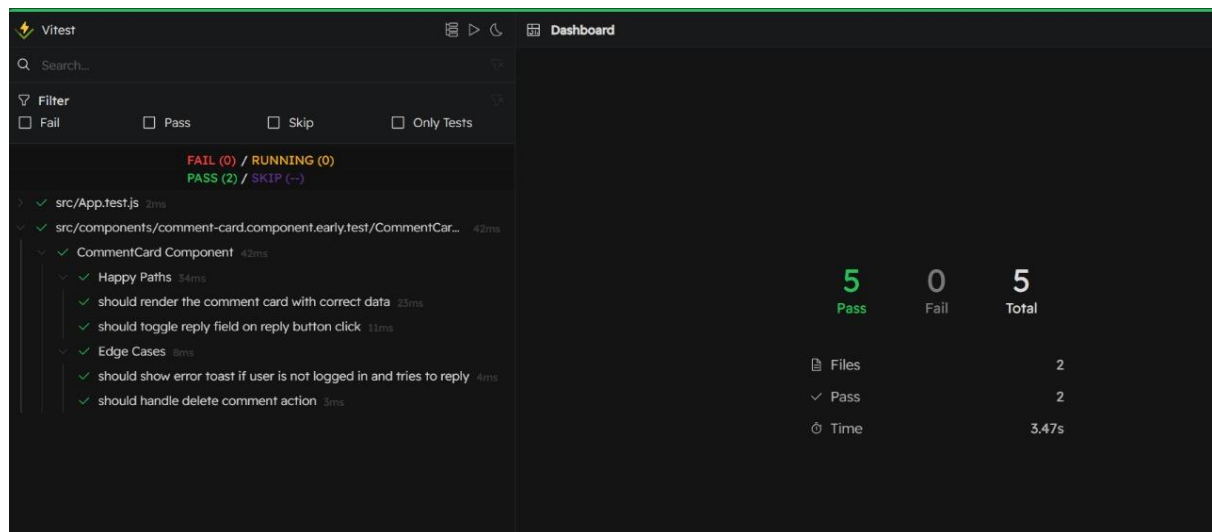
- Blog Interactions



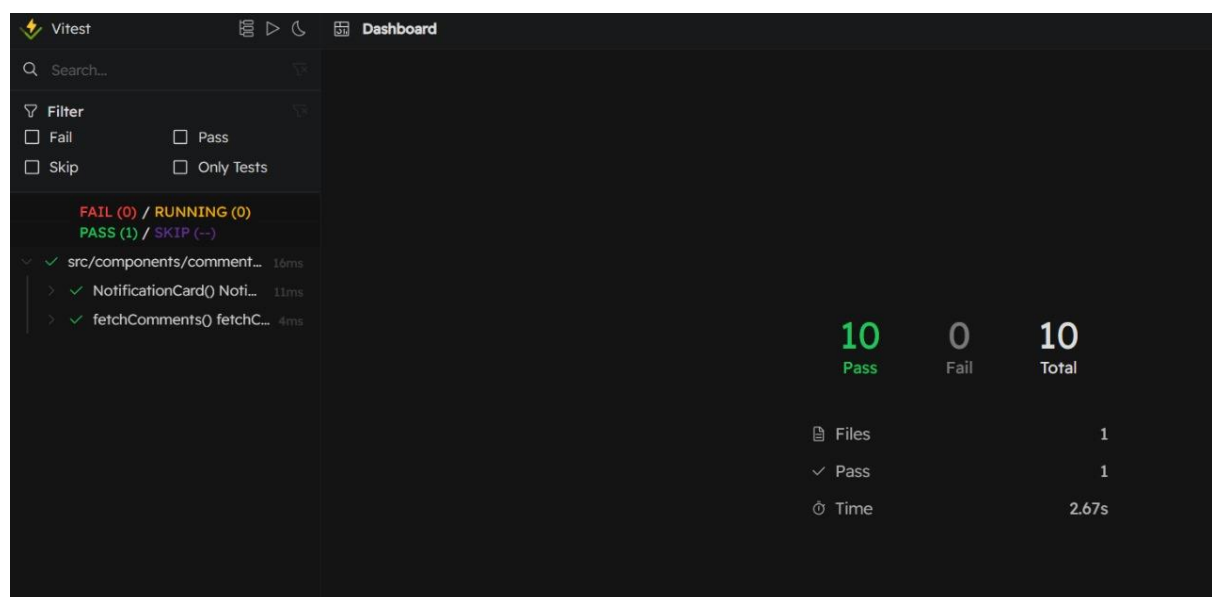
- Side Navbar



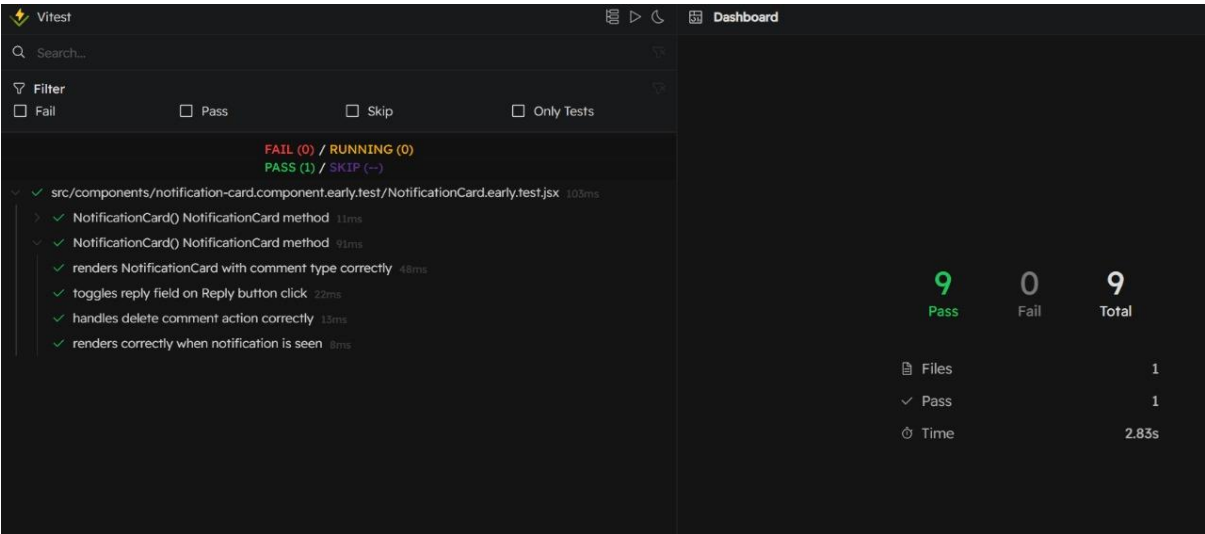
- Comment-Card Component



- Comment Component



- Notification Component



Backend Unit Testing Report

1. notificationController

1. all_notifications_count

```
> server@1.0.0 coverage
> jest --collect-coverage

PASS Controllers/notificationController.early.test/all_notifications_count.early.test.js
  all_notifications_count() all_notifications_count method
    Happy Paths
      ✓ should return the total count of notifications for the user when no filter is applied (4 ms)
      ✓ should return the total count of notifications for the user with a specific filter (1 ms)
    Edge Cases
      ✓ should return an error if the user is not found in the request (1 ms)
      ✓ should handle errors from the database gracefully (1 ms)

-----|-----|-----|-----|-----|-----
File      | % Stmts | % Branch | % Funcs | % Lines | Uncovered Line #s
-----|-----|-----|-----|-----|-----
All files |    36.11 |    38.46 |    16.66 |    36.11 |
  notificationController.js |    36.11 |    38.46 |    16.66 |    36.11 | 4-25,31-60
-----|-----|-----|-----|-----|-----

Test Suites: 1 passed, 1 total
Tests:       4 passed, 4 total
Snapshots:   0 total
Time:        1.662 s, estimated 3 s
Ran all test suites.
PS C:\Users\CHAUHAN HEMAN\OneDrive\Desktop\backend Unit\ConnectCo\react\serverOrg>
```

2. new_notification

PASS Controllers/notificationController.early.test/new_notification.early.test.js

new_notification() new_notification method

Happy Path

✓ should return 200 and true when a new unseen notification exists (3 ms)

✓ should return 200 and false when no new unseen notification exists

Edge Cases

✓ should return 400 if user is not provided in the request (3 ms)

✓ should return 500 if there is an error during database operation (1 ms)

File	% Stmts	% Branch	% Funcs	% Lines	Uncovered Line #s
All files	25	15.38	16.66	25	
notificationController.js	25	15.38	16.66	25	24-25,31-60,65-84


Test Suites: 1 passed, 1 total

Tests: 4 passed, 4 total

Snapshots: 0 total

Time: 1.656 s, estimated 2 s

Ran all test suites.

PS C:\Users\CHAUHAN HEMAN\OneDrive\Desktop\backend Unit\ConnectCo\react\serverOrg> 

2. userController

1. search_user

PASS Controllers/userController.early.test/search_user.early.test.js

search_user() search_user method

Happy paths

- ✓ should return a list of users matching the query (4 ms)
- ✓ should return an empty list if no users match the query (1 ms)

Edge cases

- ✓ should handle errors from the database gracefully
- ✓ should handle case-insensitive queries (1 ms)
- ✓ should limit the results to 50 users (1 ms)

File	% Stmts	% Branch	% Funcs	% Lines	Uncovered Line #s
All files	16	0	4.16	16.21	
Controllers	12.67	0	4.34	12.85	
userController.js	12.67	0	4.34	12.85	26-39,45-58,64-125,130-160,165-183,188-197
Schema	75	100	0	75	
Blog.js	100	100	100	100	
User.js	66.66	100	0	66.66	34

Test Suites: 1 passed, 1 total

Tests: 5 passed, 5 total

Snapshots: 0 total

Time: 3.209 s, estimated 4 s

Ran all test suites.

PS C:\Users\CHAUHAN HEMAN\OneDrive\Desktop\backend Unit\ConnectCo\react\serverOrg> █

2. update_profile

PASS Controllers/userController.early.test/update_profile.early.test.js

update_profile() update_profile method

Happy Path

- ✓ should update the user profile successfully (4 ms)

Edge Cases

- ✓ should return 403 if username is less than 3 characters (1 ms)
- ✓ should return 403 if bio exceeds 150 characters
- ✓ should return 403 if social link format is invalid (1 ms)
- ✓ should return 500 if social link URL is malformed (1 ms)
- ✓ should return 409 if username is already taken (1 ms)
- ✓ should return 500 for other database errors

File	% Stmts	% Branch	% Funcs	% Lines	Uncovered Line #s
All files	39.47	41.66	12	38.66	
Controllers	37.5	41.66	12.5	36.61	
userController.js	37.5	41.66	12.5	36.61	9-19,26-39,45-58,91,130-160,165-183,188-197
Schema	75	100	0	75	
Blog.js	100	100	100	100	
User.js	66.66	100	0	66.66	34

Test Suites: 1 passed, 1 total

Tests: 7 passed, 7 total

Snapshots: 0 total

Time: 1.854 s, estimated 3 s

Ran all test suites.

PS C:\Users\CHAUHAN HEMAN\OneDrive\Desktop\backend Unit\ConnectCo\react\serverOrg> █

3. user_written_blogs_count

PASS Controllers/userController.early.test/user_written_blogs_count.early.test.js

user_written_blogs_count() user_written_blogs_count method

Happy paths

✓ should return the correct count of blogs for a user (4 ms)

✓ should handle an empty query string gracefully (1 ms)

Edge cases

✓ should handle a database error gracefully (21 ms)

✓ should handle a missing user ID gracefully (2 ms)

File	% Stmts	% Branch	% Funcs	% Lines	Uncovered Line #s
All files	21.91	0	13.04	22.22	
Controllers	18.84	0	13.63	19.11	
userController.js	18.84	0	13.63	19.11	9-19,26-39,45-58,64-125,130-160,166-179
Schema	75	100	0	75	
Blog.js	100	100	100	100	
User.js	66.66	100	0	66.66	34

Test Suites: 1 passed, 1 total

Tests: 4 passed, 4 total

Snapshots: 0 total

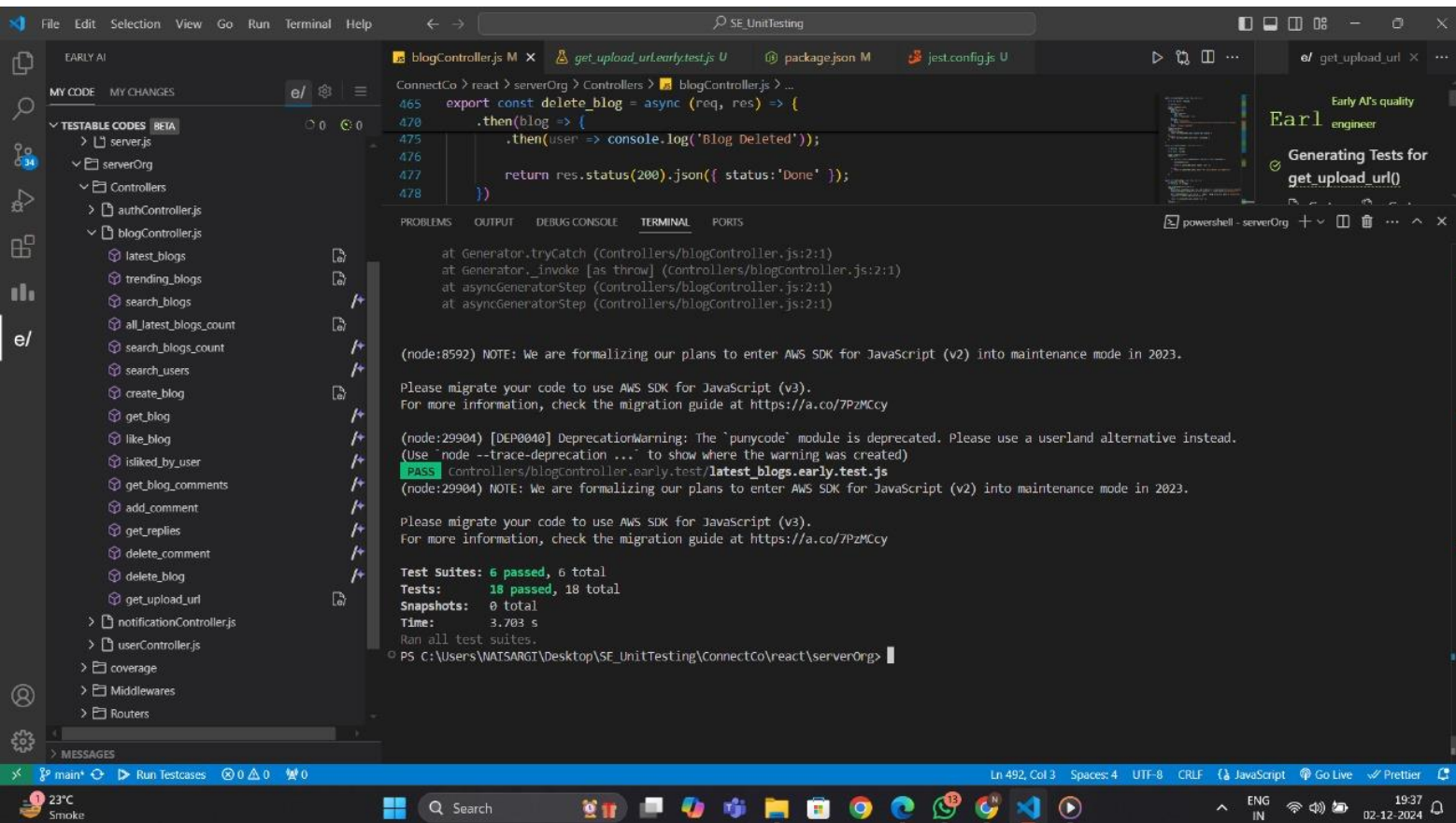
Time: 1.91 s, estimated 2 s

Ran all test suites.

PS C:\Users\CHAUHAN HEMAN\OneDrive\Desktop\backend Unit\ConnectCo\react\serverOng>

3. blogController

1. get_upload_url



2. create_blog

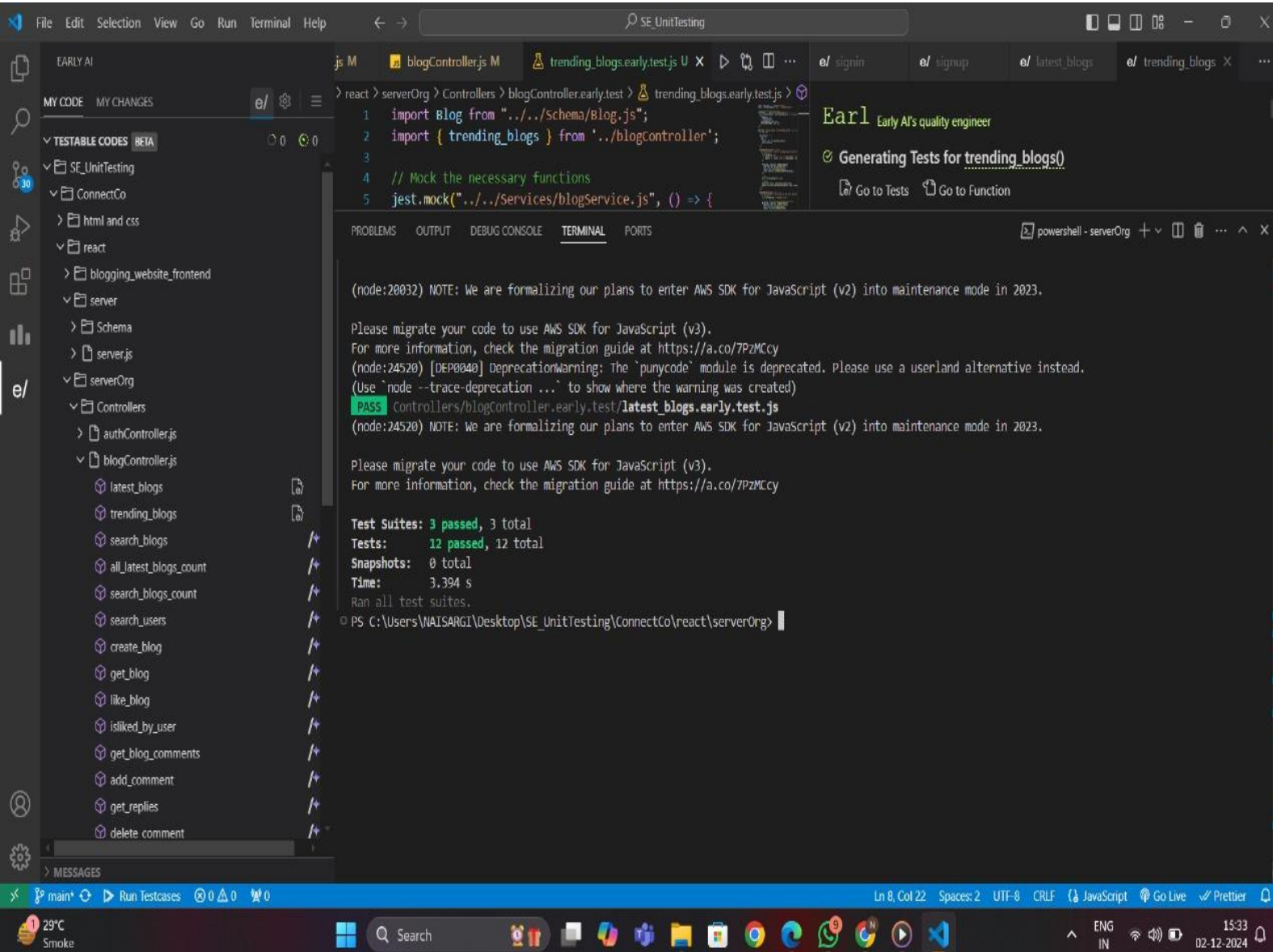
The screenshot shows a VS Code editor with a Jest test file open. The test is located in `create_blog.early.test.js` and describes the `create_blog()` method. The test is a `describe` block with a `it` block that calls `create_blog` with a request and response. The test is run in the terminal, and the output shows that all tests passed.

```
10 describe("create_blog() method", () => {
66 //   request.body.id = "existing-blog-10";
67
68 //   await create_blog(request, response);
69
70 //   expect(blog.findOneAndUpdate).toHaveBeenCalledWith(
71 //     { blog_id: "existing-blog-id" },
72 //     {
73 //       title: "Test blog",
74 //       des: "This is a test description",
75 //       banner: "test-banner.jpg",
76 //       content: { blocks: [{ type: "paragraph", data: { text: "Test content" } } ] },
77 //       tags: ["test", "blog"],
78 //     },
79 //     { upsert: true },
80 //   );
81 // });
```

Test Suites: 5 passed, 5 total
Tests: 16 passed, 16 total
Snapshots: 0 total
Time: 2.996 s, estimated 8 s
Ran all test suites.

PS C:\Users\NATSARGI\Desktop\SE_UnitTesting\ConnectCo\react\serverOrg>

3. trending_blogs



The screenshot shows a VS Code editor with a project named 'SE_UnitTesting'. The file explorer on the left shows the project structure, including a 'serverOrg' directory with a 'Controllers' subdirectory. The 'trending_blogs.early.test.js' file is open in the editor, showing a Jest test for the 'trending_blogs' function. The test is located in the 'Controllers' directory, under 'blogController.early.test.js'.

```
1 import Blog from "../../Schema/Blog.js";
2 import { trending_blogs } from '../blogController';
3
4 // Mock the necessary functions
5 jest.mock("../../Services/blogService.js", () => {
```

The terminal output shows the test results for the 'trending_blogs' test suite. The test passed, and the terminal displays the following information:

```
(node:20032) NOTE: We are formalizing our plans to enter AWS SDK for JavaScript (v2) into maintenance mode in 2023.
Please migrate your code to use AWS SDK for JavaScript (v3).
For more information, check the migration guide at https://a.co/7P2MCcy
(node:24520) [DEP0040] DeprecationWarning: The `punycode` module is deprecated. Please use a userland alternative instead.
(Use `node --trace-deprecation ...` to show where the warning was created)
PASS Controllers/blogController.early.test/latest_blogs.early.test.js
(node:24520) NOTE: We are formalizing our plans to enter AWS SDK for JavaScript (v2) into maintenance mode in 2023.
Please migrate your code to use AWS SDK for JavaScript (v3).
For more information, check the migration guide at https://a.co/7P2MCcy

Test Suites: 3 passed, 3 total
Tests: 12 passed, 12 total
Snapshots: 0 total
Time: 3.394 s
Ran all test suites.
PS C:\Users\NAISARGI\Desktop\SE_UnitTesting\ConnectCo\react\serverOrg>
```

The status bar at the bottom of the VS Code window shows the current file is 'main.js', the test runner is 'Run Testcases', and the file encoding is 'UTF-8'. The system tray at the bottom right shows the date and time as '15:33 02-12-2024'.

4. all_latest_blogs_count

The screenshot shows the Visual Studio Code interface with a test run in progress. The left sidebar displays the file explorer with a tree view of the project structure. The main editor shows the code for `all_latest_blogs_count.early.test.js`. The terminal window at the bottom displays the output of the test run, including deprecation warnings and test results.

File Explorer (Left Sidebar):

- TESTABLE CODES **BETA**
 - server.js
 - serverOrg
 - Controllers
 - authController.js
 - blogController.js
 - latest_blogs
 - trending_blogs
 - search_blogs
 - all_latest_blogs_count
 - search_blogs_count
 - search_users
 - create_blog
 - get_blog
 - like_blog
 - isliked_by_user
 - get_blog_comments
 - add_comment
 - get_replies
 - delete_comment
 - delete_blog
 - get_upload_url
 - notificationController.js
 - UserController.js
 - coverage
 - Middlewares
 - Routers

Code Editor (Main):

```
ConnectCo > react > serverOrg > Controllers > blogController.js > all_latest_blogs_count
87 export const all_latest_blogs_count = async (req, res) => {
88   const count = await Blog.countDocuments({ draft: false }); // Count non-draft blogs
90   return res.status(200).json({ totalDocs: count }); // Return the total count of blogs
91 } catch (err) {
```

Terminal (Bottom):

```
Please migrate your code to use AWS SDK for JavaScript (v3).
For more information, check the migration guide at https://a.co/7P2MCcy
(node:10440) [DEP0040] DeprecationWarning: The 'punycode' module is deprecated. Please use a userland alternative instead.
(Use 'node --trace-deprecation ...' to show where the warning was created)
PASS controllers/blogController.early.test/latest_blogs.early.test.js
(node:10440) NOTE: We are formalizing our plans to enter AWS SDK for JavaScript (v2) into maintenance mode in 2023.

Please migrate your code to use AWS SDK for JavaScript (v3).
For more information, check the migration guide at https://a.co/7P2MCcy

Please migrate your code to use AWS SDK for JavaScript (v3).
For more information, check the migration guide at https://a.co/7P2MCcy

Please migrate your code to use AWS SDK for JavaScript (v3).
For more information, check the migration guide at https://a.co/7P2MCcy

Test Suites: 5 passed, 5 total
Tests: 17 passed, 17 total
Snapshots: 0 total
Time: 4.987 s
Ran all test suites.
PS C:\Users\WATSARGI\Desktop\SE_UnitTesting\ConnectCo\react\serverOrg>
```

Taskbar (Bottom):

- System tray: 27°C, Smoke, Search, Task View, File Explorer, VS Code, Play button.
- Language: ENG IN
- Time: 17:05, 02-12-2024

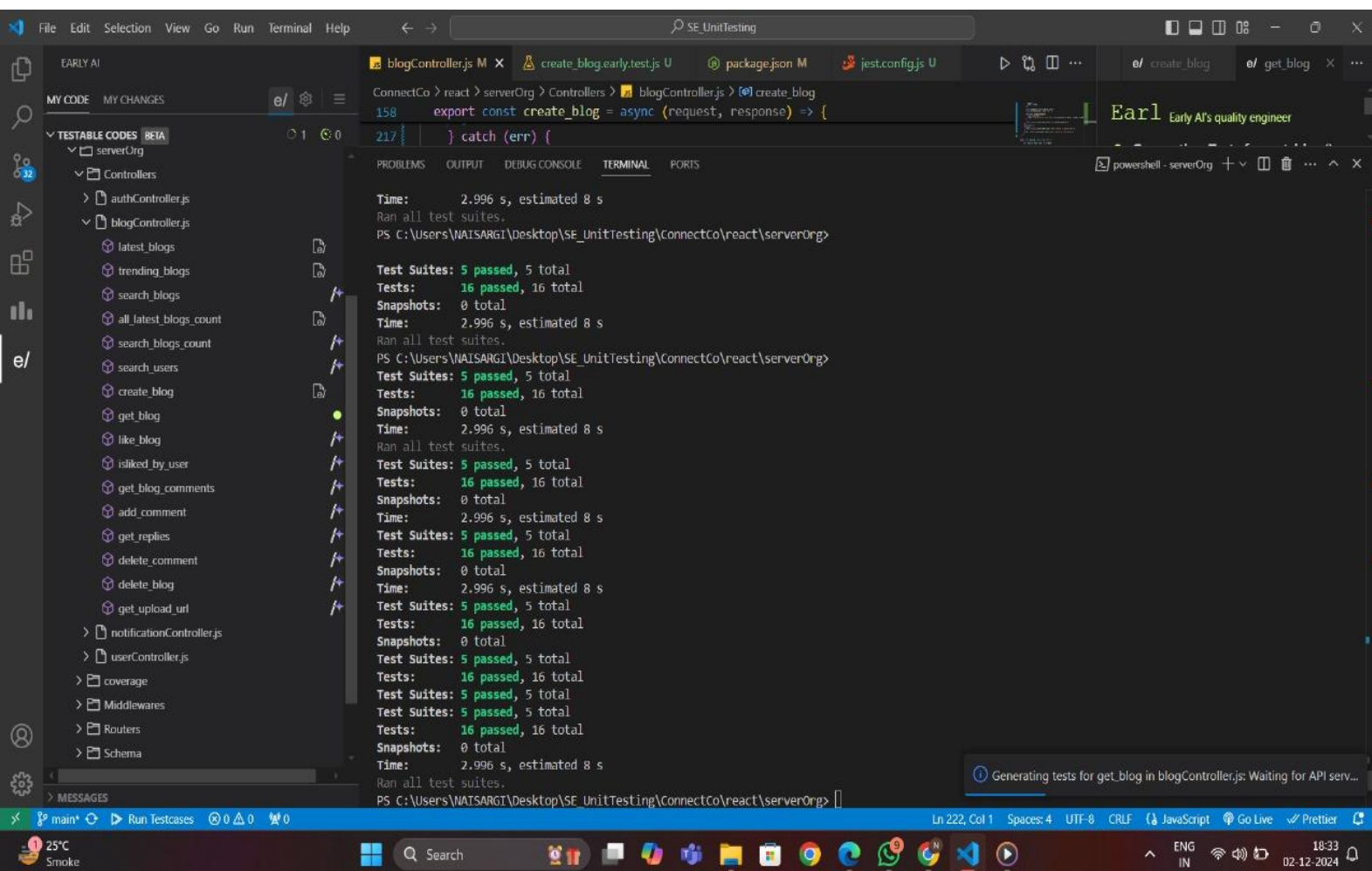
5. latest_blogs

The screenshot displays the Visual Studio Code interface for a project named 'SE_UnitTesting'. The Explorer on the left shows the file structure, including the 'latest_blogs.early.test.js' file. The Editor on the right shows the code for the 'signin' function, which is an asynchronous function that compares a password with a user's personal info. The Terminal at the bottom shows the output of running the tests, indicating that 2 test suites and 10 tests passed.

```
export const signin = async (req, res) => {
  bcrypt.compare(password, user.personal_info.
  });
} else {
  return res.status(403).json({ "error": "Acco
} catch (err) {
  // console.error(err.message);
  return res.status(500).json({ "error": "Server e
};
};
```

Test Suites: 2 passed, 2 total
Tests: 10 passed, 10 total
Snapshots: 0 total
Time: 2.451 s, estimated 4 s
Ran all test suites.

6. Combined Results with “get_blog”



4. authController

1. signin

The screenshot shows the VS Code editor with the following components:

- EXPLORER:** Shows the project structure with folders like `ConnectCo`, `react`, `blogging_website_frontend`, `server`, `serverOrg`, and `Controllers`. The `authController.js` file is selected under `Controllers`.
- SE UNIT TESTING:** Shows the test results for the `signin` function. The tests are `signin.1.early.test.js` and `blogController.early.test.js`. The results show `2 passed, 2 total` and `10 passed, 10 total`.
- TERMINAL:** Shows the command `server@1.0.0 coverage` and `jest --collect-coverage` being executed. The output shows the test results and a warning about the `punycode` module being deprecated.
- authController.js:** The code for the `signin` function is visible. It uses `bcrypt.compare` to compare the password with the user's personal info. If the comparison fails, it returns a 403 status with an error message. If it succeeds, it returns a 200 status with a success message.

```
export const signin = async (req, res) => {
  const { password } = req.body;
  const user = await User.findOne({ email: req.body.email });
  if (!user) {
    return res.status(403).json({ "error": "Account does not exist" });
  }
  const compare = await bcrypt.compare(password, user.personal_info.password);
  if (!compare) {
    return res.status(403).json({ "error": "Incorrect password" });
  }
  return res.status(200).json({ "message": "User logged in successfully" });
} catch (err) {
  console.error(err.message);
  return res.status(500).json({ "error": "Server error" });
}
```

Test Suites: 2 passed, 2 total
Tests: 10 passed, 10 total
Snapshots: 0 total
Time: 2.451 s, estimated 4 s
Ran all test suites.

5. notificationController and UserController

File	% Stmts	% Branch	% Funcs	% Lines	Uncovered Line #s
All files	57.79	47.36	41.37	57.4	
Controllers	57.14	47.36	42.85	56.73	
notificationController.js	58.33	61.53	33.33	58.33	31-60
UserController.js	56.52	40	45.45	55.88	9-19,26-39,91,132-160,166-179
Schema	75	100	0	75	
Blog.js	100	100	100	100	
User.js	66.66	100	0	66.66	34
Test Suites: 8 failed, 2 passed, 10 total					
Tests: 15 failed, 17 passed, 32 total					
Snapshots: 0 total					
Time: 18.241 s					
Ran all test suites.					