

Unit Testing Report

Group – 15

Introduction

This document provides an overview of the unit testing conducted for the project using Jest and earlyAI. It covers both back-end testing and details related to coverage, methodology, and the benefits derived from the testing process.

Tools and Frameworks:

Jest: A JavaScript testing framework created to verify the accuracy and reliability of codebases.

White Box testing:

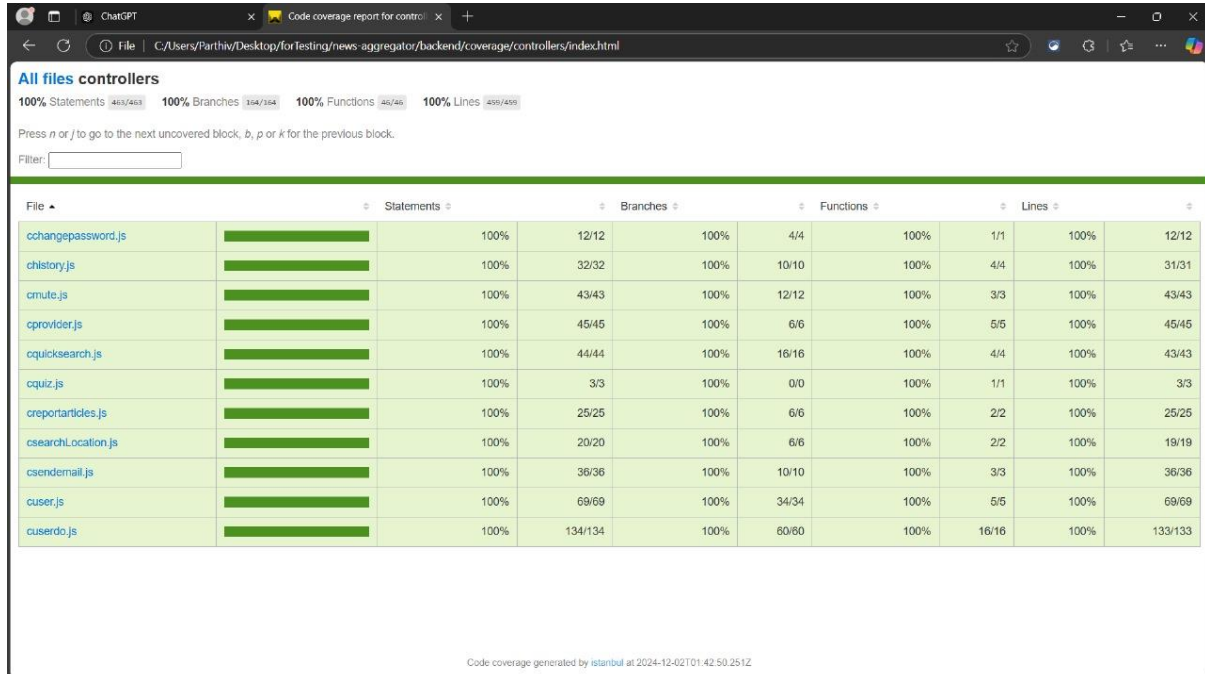
White-box testing is a software testing method that involves examining the internal structure, design, and implementation of the code. Testers have access to the source code and focus on verifying the logic, flow, and functionality of the system.

Why unit testing is essential?

- **Improved Code Quality:** Promotes the development of clean, modular, and easy-to-maintain code.
- **Early Issue Identification:** Detects problems at an early stage, reducing their impact on the overall project.

Unit testing (for Backend)

Overall coverage:



All files controllers

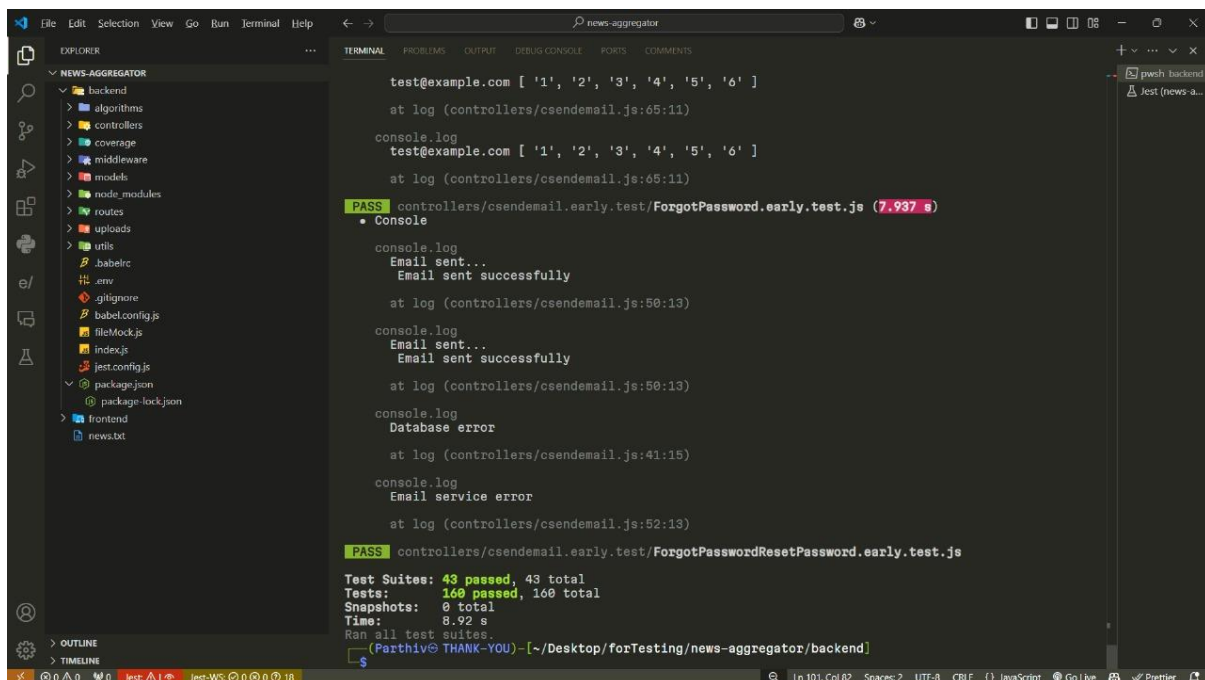
100% Statements 443/443 100% Branches 164/164 100% Functions 46/46 100% Lines 439/439

Press n or / to go to the next uncovered block, b, p or k for the previous block.

Filter:

File	Statements	Branches	Functions	Lines
cchangepassword.js	100%	12/12	4/4	100%
chistory.js	100%	32/32	10/10	100%
cmute.js	100%	43/43	12/12	100%
cprovider.js	100%	45/45	6/6	100%
cquicksearch.js	100%	44/44	16/16	100%
cquiz.js	100%	3/3	0/0	100%
creportarticles.js	100%	25/25	6/6	100%
csearchLocation.js	100%	20/20	6/6	100%
csendemail.js	100%	36/36	10/10	100%
cuser.js	100%	69/69	34/34	100%
cuserdo.js	100%	134/134	60/60	100%

Code coverage generated by Istanbul at 2024-12-02T01:42:50.251Z



```
test@example.com [ '1', '2', '3', '4', '5', '6' ]
at log (controllers/csendemail.js:65:11)
console.log
test@example.com [ '1', '2', '3', '4', '5', '6' ]
at log (controllers/csendemail.js:65:11)
PASS controllers/csendemail.early.test/ForgotPassword.early.test.js (7.937 s)
  • Console
    console.log
      Email sent...
      Email sent successfully
    at log (controllers/csendemail.js:50:13)
    console.log
      Email sent...
      Email sent successfully
    at log (controllers/csendemail.js:50:13)
    console.log
      Database error
    at log (controllers/csendemail.js:41:15)
    console.log
      Email service error
    at log (controllers/csendemail.js:52:13)
PASS controllers/csendemail.early.test/ForgotPasswordResetPassword.early.test.js
Test Suites: 43 passed, 43 total
Tests: 160 passed, 160 total
Snapshots: 0 total
Time: 8.92 s
Ran all test suites.
(Parthiv@ THANK-YOU) - [~/Desktop/forTesting/news-aggregator/backend]
```

All the test cases have been passed.