

DYNAMIC RESUME ANALYZER – Sprint 2 Report

Project Id 47

Vineet Sharma, Vishwambhara RH, Vrishank NA, Prerana MP

Sprint 2 Retrospective

What Went Well

- The team became much more confident and efficient with the overall development workflow.
- Tasks were well-divided this sprint — each member clearly understood their responsibilities.
- Communication improved significantly through quick sync-ups and frequent updates, reducing blockers.
- The enhanced CI/CD pipeline functioned smoothly, giving immediate feedback on build, test, lint, and security checks after every push.
- Development speed increased since several base modules from Sprint 1 were already in place.
- Collaboration on PRs and reviews was consistent, leading to cleaner merges and higher-quality code.

Challenges Faced

- Grammar engine integration was the biggest challenge due to inconsistent behaviour between local and CI environments.
- Some async functions were not properly awaited, leading to unexpected test warnings.
- Security scans (Bandit) flagged minor issues that required multiple configuration tweaks.
- A few merge conflicts occurred late in the sprint when multiple features overlapped in the same modules.
- Managing coverage enforcement with new feature additions required careful test updates.

Improvements from Sprint 1

- The team transitioned from setup and experimentation in Sprint 1 to a structured, disciplined workflow in Sprint 2.
- Branching, commit messages, and PR reviews became more professional and rubric-aligned.
- Testing quality improved drastically — we now have unit, integration, and system tests with coverage checks integrated into CI.

- Introduced advanced NLP features (Grammar Checks, Action Verb Engine, and Gap Detection) that made the analyzer more intelligent and end-to-end functional.
- CI/CD automation was refined — full pipeline reliability achieved from build to deployment with strict quality gates.
- Overall, the team worked faster, handled issues proactively, and delivered more robust, production-ready functionality.

Future Improvements

Full database integration was planned but could not be completed; this would make the system more scalable and persistent.

More polished and responsive UI redesign could improve user experience.

In future, we can optimize grammar and NLP models for faster execution, refine UI responsiveness, and expand test automation to include visual/UI testing. We also plan to containerize the project with Docker and add automated deployment to a cloud environment for full end-to-end DevOps maturity.

Sprint 2 Outcome

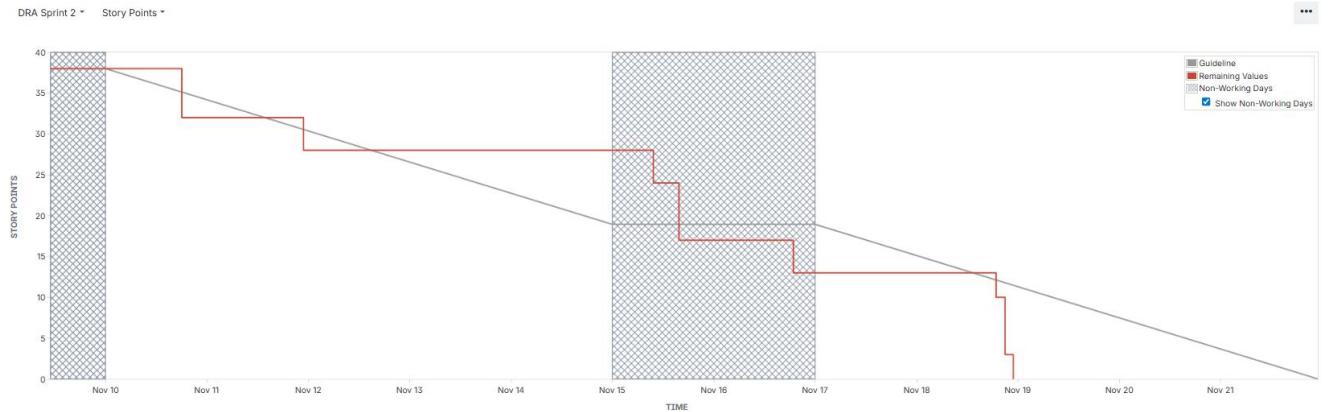
Sprint 2 significantly strengthened the project's stability and feature completeness. The team delivered advanced NLP capabilities, improved test coverage, and a fully reliable CI/CD pipeline. Overall productivity, collaboration, and code quality improved noticeably compared to Sprint 1.

1. JIRA backlog with Epics and User Stories

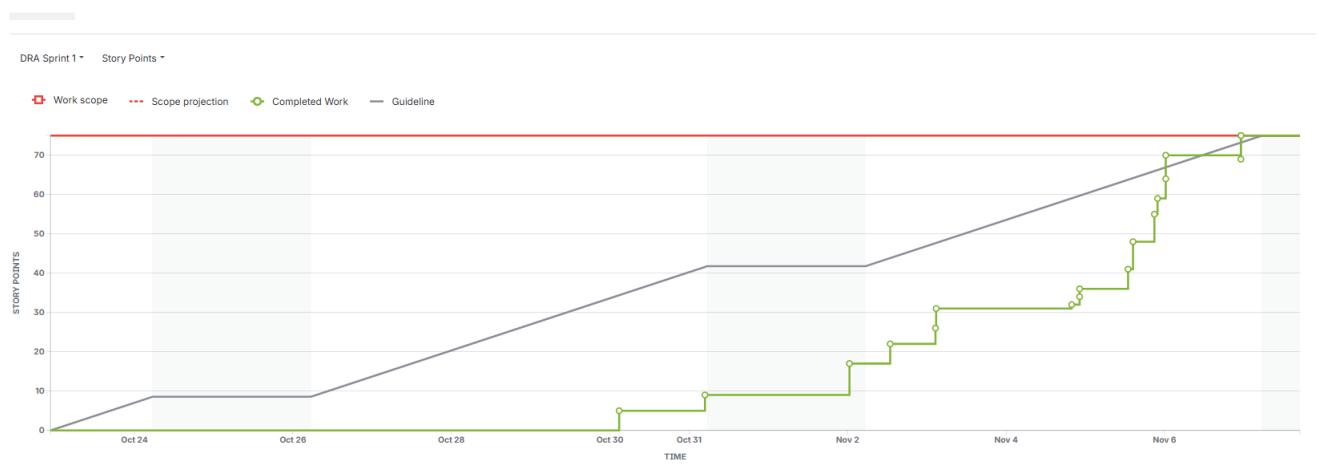
Epics, Stories and subtasks taken up in sprint 1: 9/11/2025 – 21/11/2025

| DRA Sprint 2 9 Nov – 21 Nov (11 work items) | | 0 | 14 | 28 | Complete sprint | ... |
|---|---|---|-------------------------|-------------|-----------------|-----|
| <input type="checkbox"/> | VS PM VH VB ... | | | | | |
| > <input checked="" type="checkbox"/> DRA-13 | FR-007: Grammar & spelling check. | | EPIC 3: RESUME QUA... | DONE | 6 | |
| > <input checked="" type="checkbox"/> DRA-19 | FR-013: Suggest stronger action verbs. | | EPIC 4: JOB FIT & IM... | DONE | 4 | |
| > <input checked="" type="checkbox"/> DRA-15 | FR-009: Detect employment gaps (>6 months) & word count | | EPIC 3: RESUME QUA... | DONE | 4 | |
| > <input checked="" type="checkbox"/> DRA-18 | FR-012: Compare resume with job description. | | EPIC 4: JOB FIT & IM... | DONE | 7 | |
| > <input checked="" type="checkbox"/> DRA-17 | FR-011: Suggest resume templates by industry. | | EPIC 4: JOB FIT & IM... | DONE | 3 | |
| > <input checked="" type="checkbox"/> DRA-104 | NFR-008: Implement Anonymous Metadata Logging | | EPIC 6: NON-FUNCTI... | IN PROGRESS | 4 | |
| > <input checked="" type="checkbox"/> DRA-14 | FR-008: Resume scoring system. | | EPIC 3: RESUME QUA... | DONE | 4 | |
| > <input checked="" type="checkbox"/> DRA-27 | NFR-005: Balanced feedback in reports. | | EPIC 6: NON-FUNCTI... | IN PROGRESS | 3 | |
| > <input checked="" type="checkbox"/> DRA-28 | NFR-006: Minimize cognitive overload. | | EPIC 6: NON-FUNCTI... | IN PROGRESS | 2 | |
| > <input checked="" type="checkbox"/> DRA-29 | NFR-007: WCAG 2.1 AA accessibility compliance. | | EPIC 6: NON-FUNCTI... | IN PROGRESS | 2 | |
| > <input checked="" type="checkbox"/> DRA-39 | US-706: System Test Case Development & End-to-End Testing | | EPIC 7: TESTING & Q... | IN PROGRESS | 3 | |

BURNDOWN CHART



Burnup Chart



Example User Story with subtasks and Acceptance criteria (INVEST)

Jira work item



DRA-4 / DRA-18

1

FR-012: Compare resume with job description.



Description

As a recruiter
I want to match resumes with job descriptions
So that I can see missing skills and fit percentage.

Acceptance Criteria:

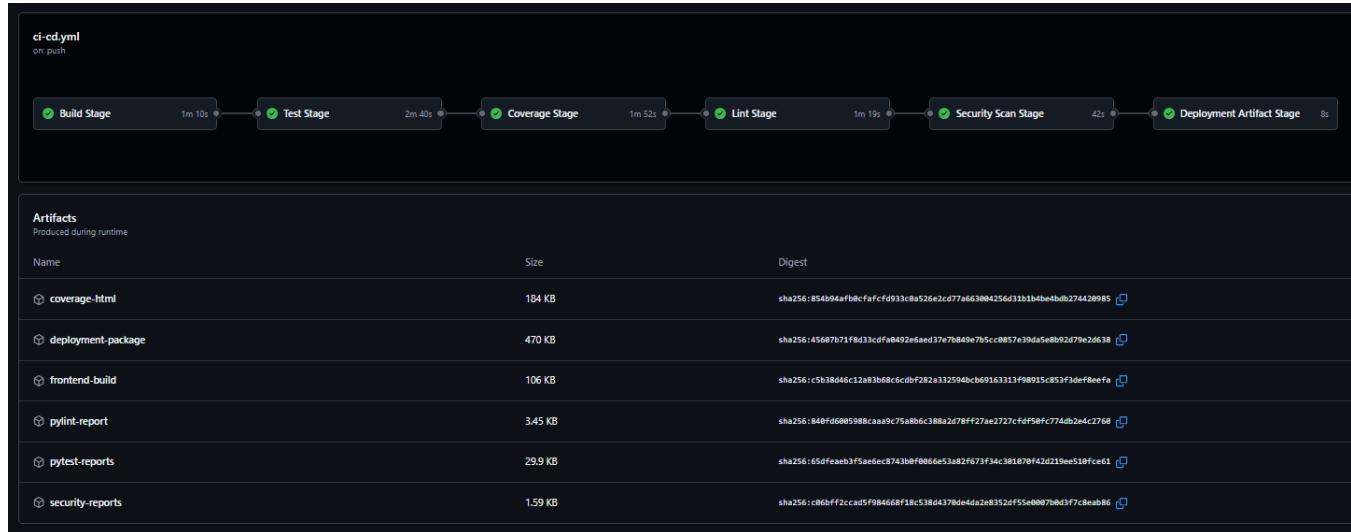
1. System must extract required skills, qualifications, and experience from the job description.
2. Skills in the resume must be matched against JD requirements using exact, synonym, and partial matching.
3. Fit percentage must be calculated using weighted scoring (skills, experience, education).
4. API must return matched skills, missing skills, fit % category, and recommendations.
5. Frontend must display fit percentage visually and highlight matched vs missing skills.

CI/CD Pipeline:

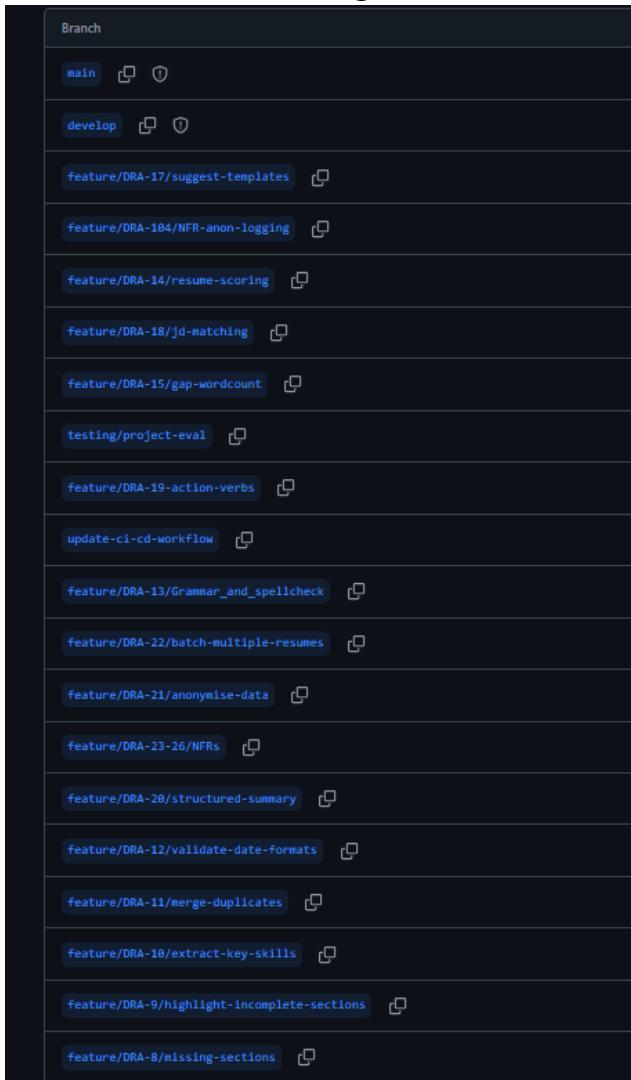
We invested around 3 hours in Week 1 refining the CI/CD pipeline, and this paid off significantly — it saved nearly 20 hours across Weeks 3–4 by catching issues early and preventing repeated debugging.

Early automation reduced manual checks, improved team velocity, and let us focus more on feature development instead of firefighting.

chore(ci): merge develop → main after successful validation



Consistent branch naming



UNIT, INTEGRATION AND SYSTEM TESTS: (TEST STAGE)

Test Stage

succeeded 19 minutes ago in 2m 23s

```
> ✓ Run Unit Tests (with coverage enforcement)
  58  src/utils/perf.py          42   18   57%
  59  src/utils/timeit.py       15    0  100%
  60  -----
  61  TOTAL                   1688  389  77%
  62  Required test coverage of 75% reached. Total coverage: 76.85%
  63  184 passed, 7 warnings in 13.10s

> ✓ Run Integration Tests
  1  ► Run pytest tests/integration --disable-warnings -q
  14  .....[100%]
  15  44 passed, 12 warnings in 13.12s

> ✓ Run System Tests
  1  ► Run pytest tests/system --disable-warnings -q
  14  /opt/hostedtoolcache/Python/3.10.19/x64/lib/python3.10/site-packages/_pytest/unraisableexception.py:33: RuntimeWarning: coroutine 'run_analysis' was never awaited
  15  gc.collect()
  16  RuntimeWarning: Enable tracemalloc to get the object allocation traceback
  17  /opt/hostedtoolcache/Python/3.10.19/x64/lib/python3.10/site-packages/_pytest/unraisableexception.py:33: RuntimeWarning: coroutine 'analyze_resume_with_gaps' was never awaited
  18  gc.collect()
  19  RuntimeWarning: Enable tracemalloc to get the object allocation traceback
  20  .....[100%]
  21  8 passed, 7 warnings in 3.30s
```

COVERAGE STAGE (Source code)

We wrote tests simultaneously and achieved 83% coverage by Sprint 2

```
178  src/utils/perf.py
  179  src/utils/timeit.py          15   0   0   0  100%
  180  -----
  181  TOTAL                   1680  261  500  58  83%
  182  Coverage HTML written to dir htmlcov
  183  Required test coverage of 75% reached. Total coverage: 82.89%
  184  ===== 236 passed, 14 warnings in 28.75s =====

> ✓ Post Setup Python
```

LINT STAGE (pylint, eslint) (pipeline fails if below threshold)

Lint Stage

succeeded 17 minutes ago in 2m 3s

```
> ✓ Set up job
> ✓ Checkout repository
> ✓ Setup Python
> ✓ Install Cairo system dependencies
> ✓ Install project dependencies
> ✓ Install pylint
> ✓ Run pylint and enforce score ≥7.5
  1  ► Run echo "Running pylint..."
  17 Running pylint...
  18 Pylint Score: 8.64
  19 Pylint check passed.

> ✓ Setup Nodejs
> ✓ Install frontend dependencies
> ✓ Run ESLint
  1  ► Run npm run lint
  14
  15  > frontend@0.0.0 lint
  16  > eslint .
  17
```

SECURITY STAGE (bandit, safety)

Security Scan Stage
succeeded 1 hour ago in 41s

Setup Python 8s

Install Cairo system dependencies 22s

Install Security Tools 12s

Run Bandit (Static Security Scan) 8s

```
1 ► Run bandit -r src -f json -o bandit-report.json
11 [main] INFO profile include tests: None
12 [main] INFO profile exclude tests: None
13 [main] INFO cli include tests: None
14 [main] INFO cli exclude tests: None
15 [json] INFO JSON output written to file: bandit-report.json
```

Run Safety (Dependency Vulnerability Check) 3s

```
1 ► run safety check --full-report > safety-report.txt
```

Upload Security Reports 8s

```
1 ► Run actions/upload-artifact@v4
18 Multiple search paths detected. Calculating the least common ancestor of all paths
19 The least common ancestor is /home/runner/work/PESU_RR_CSE_L_P47_Dynamic_Resume_Analyzer_CommitAndChill/PESU_RR_CSE_L_P47_Dynamic_Resume_Analyzer_CommitAndChill. This will be the root directory of the artifact
20 With the provided path, there will be 2 files uploaded
21 Artifact name is valid!
22 Root directory input is valid!
23 Beginning upload of artifact content to blob storage
24 Uploaded bytes 1419
25 Finished uploading artifact content to blob storage!
26 SHA256 digest of uploaded artifact zip is 554ae7d21ac2905474a65a24036f3f90b62f95c7866b509b8713fce774694c81
27 Finalizing artifact upload
28 Artifact security-reports.zip successfully finalized. Artifact ID 4507928727
29 Artifact security-reports has been successfully uploaded! Final size is 1419 bytes. Artifact ID is 4507928727
30 Artifact download URL: https://github.com/pestechnolog/PESU_RR_CSE_L_P47_Dynamic_Resume_Analyzer_CommitAndChill/actions/runs/19194362755/artifacts/4507928727
```

Post Setup Python 8s

Pull Requests- We maintained a specific format for all pull requests, ensuring each included a clear title, description, and linked Jira ID. This made reviews structured, faster, and more consistent across the team.

feature/dra14/resume_scoring #48

Merged prerana2005 merged 6 commits into develop from feature/DRA-14/resume-scoring 9 hours ago

Conversation 1 Commits 6 Checks 6 Files changed 39 +1,484 -1,058

vrishank-na commented 10 hours ago

Fix: Resolve all Pytest failures by refactoring tests and fixing logic bugs

Description

This pull request addresses the 17 failing Pytest tests that were caused by recent updates to the application's scoring logic. The core issue was that the test files were asserting against old logic and data structures.

This PR brings the entire Pytest suite to 230/230 passing tests.

1. Test Refactoring (Changes to tests/)

- tests/unit/feedback/test_scoring.py:
 - Fixed a `TypeError` in all scoring tests by correctly passing the `verb_score` argument to the `_calculate_final_score` function.
 - Updated all expected assertion values (e.g., `60` → `63`) to match the new 60/30/10 (Completeness/Verb/Grammar) scoring weights.
- tests/unit/feedback/test_feedback_generator.py:
 - Updated the expected score in `test_score_penalty_for_incomplete_sections` from `80` to `48`. This aligns the test with the new, stricter 15-point penalty logic.
- tests/integration/test_score_report_integration.py:
 - Updated the expected score from `57` to `51` to match the new logic.
- tests/system/test_api_download.py:
 - Updated the hardcoded assertion from `**Quality Score:** 82/100` to the new, correctly calculated score of `**Quality Score:** 34/100` (based on the `data_service` mock data).
- KeyError Fixes (e.g., in `test_feedback_id_verification.py`):
 - Tests failing with `KeyError: 'incomplete_sections'` were resolved by fixing the bug in the `feedback_generator` (see below).

2. Source Code Bug Fixes (Changes to src/)

These bugs were exposed by the failing tests and have now been fixed:

- src/feedback/feedback_generator.py:
 - Fixed Orchestrator Bug: In `generate_comprehensive_feedback_with_grammar`, the `base_feedback` (which contained `strengths`, `incomplete_sections`, etc.) was being discarded. The function now correctly merges all results into `base_feedback`.

Reviewers

- prerana2005 ✓
- VineetSharma05
- vishwanbharRH
- RakshitKakunjie0
- Thaman-N
- v-v-i-s-h-w-a-s
- rbanginwar

Assignees

No one → assign yourself

Labels

None yet

Projects

None yet

Milestone

No milestone

Development

Successfully merging this pull request may close these issues.

None yet

Notifications

Unsubscribe Customize

You're receiving notifications because you modified the open/closed state.

2 participants

Lock conversation

2. Source Code Bug Fixes (Changes to src/)

These bugs were exposed by the failing tests and have now been fixed:

- src/feedback/feedback_generator.py :
 - i. Fixed Orchestrator Bug: In `generate_comprehensive_feedback_with_grammar`, the `base_feedback` (which contained `strengths`, `incomplete_sections`, etc) was being discarded. The function now correctly merges all results into `base_feedback` before returning.
 - ii. Fixed Missing Verb Suggestions: Fixed a bug where action verb suggestions were calculated but not added to the final report if `include_grammar=False`.
 - iii. Fixed PDF Generator Bug: Made the `generate_pdf_report` function's `template_context` robust. It now correctly checks for `overall_score`, `score`, and `overallScore` (as well as other inconsistent keys) from our different mock data sources.

Result

- 17 failing tests are now passing.
- The entire Pytest suite is 100% green (230/230).
- The scoring logic is preserved, and the tests now correctly validate its behavior.

Jira ticket: DRA 14

vishwambharaRH added 6 commits 2 days ago

- Scoring system implemented 6ba4e25
- Merge branch 'develop' of https://github.com/pestechnology/PESU_BB_CS... 1a94028
- Merge branch 'develop' into feature/DRA-14/resume-scoring 579f10a
- Scoring methodology implemented 417ee5d
- Masking Personal details refactored 23f30af
- Test coverage and reformatting verified e6b4fda

vishwambharaRH requested review from RakshithKakunje9, Thaman-N, VineetSharma05, prerana2005, rbanginwar, v-s-v-i-s-h-w-a-s-5 and vishwambharaRH as code owners 10 hours ago

prerana2005 approved these changes 10 hours ago

prerana2005 left a comment

Approved. The refactoring is clean, all failing tests have been resolved, and the scoring logic updates are consistent with the new 60/30/10 weight system. All checks passing. Good work!

GITHUB ACTIONS(Pipeline Reliability):

| | | | | | |
|--|---|--------------------------------|---------------------------|--------|-----|
| | Merge pull request #51 from pestechnology/update-ci-cd-workflow CI/CD Pipeline #74: Commit b6bf4ad pushed by vishwambharaRH | develop | 19 minutes ago | 9m 40s | ... |
| | Fix CI/CD deployment artifact - Include frontend source code CI/CD Pipeline #73: Pull request #51 synchronize by prerana2005 | update-ci-cd-workflow | 24 minutes ago | 8m 48s | ... |
| | Fix CI/CD deployment artifact - Include frontend source code CI/CD Pipeline #72: Pull request #51 synchronize by prerana2005 | update-ci-cd-workflow | 24 minutes ago | 8m 45s | ... |
| | Merge pull request #50 from pestechnology/integration CI/CD Pipeline #71: Commit c6bd2f1 pushed by vishwambharaRH | develop | 37 minutes ago | 8m 24s | ... |
| | merge integration into develop CI/CD Pipeline #70: Pull request #50 opened by vishwambharaRH | integration | 40 minutes ago | 8m 41s | ... |
| | Merge pull request #49 from pestechnology/feature/DRA-17/suggest-temp... CI/CD Pipeline #69: Commit 44ab481 pushed by vishwambharaRH | develop | Today at 7:35 PM | 9m 27s | ... |
| | feature/DRA-17/suggest-templates CI/CD Pipeline #68: Pull request #49 opened by vishwambharaRH | Feature/DRA-17/suggest-temp... | Today at 7:19 PM | 9m 12s | ... |
| | Merge pull request #48 from pestechnology/feature/DRA-14/resume-scoring CI/CD Pipeline #67: Commit 28aa7fd pushed by prerana2005 | develop | Today at 1:45 PM | 9m 10s | ... |
| | feature/dra14/resume_scoring CI/CD Pipeline #66: Pull request #48 opened by vishwambharaRH | feature/DRA-14/resume-scoring | Today at 1:21 PM | 9m 58s | ... |
| | Merge pull request #47 from pestechnology/feature/DRA-18/jd-matching CI/CD Pipeline #65: Commit d2c59b7 pushed by prerana2005 | develop | Nov 16, 11:49 PM GMT+5:30 | 7m 33s | ... |
| | Implement Resume vs Job Description Matching (DRA-18) CI/CD Pipeline #64: Pull request #47 opened by prerana2005 | feature/DRA-18/jd-matching | Nov 16, 11:29 PM GMT+5:30 | 8m 13s | ... |

Based on last 15 runs we had 100% success rate of our pipeline in sprint 2.