

DYNAMIC RESUME ANALYZER – Sprint 2 Report

Project Id 47

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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

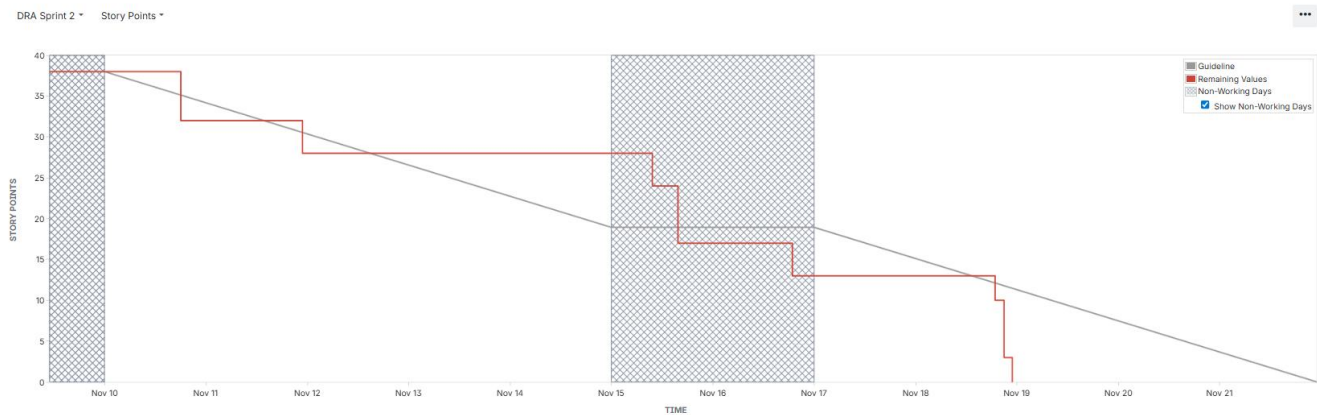
Sprint 2 significantly strengthened the project's stability and feature completeness. The team delivered advanced NLP capabilities, improved test coverage, and a fully reliable CI/CD pipeline. Overall productivity, collaboration, and code quality improved noticeably compared to Sprint 1.

1. JIRA backlog with Epics and User Stories

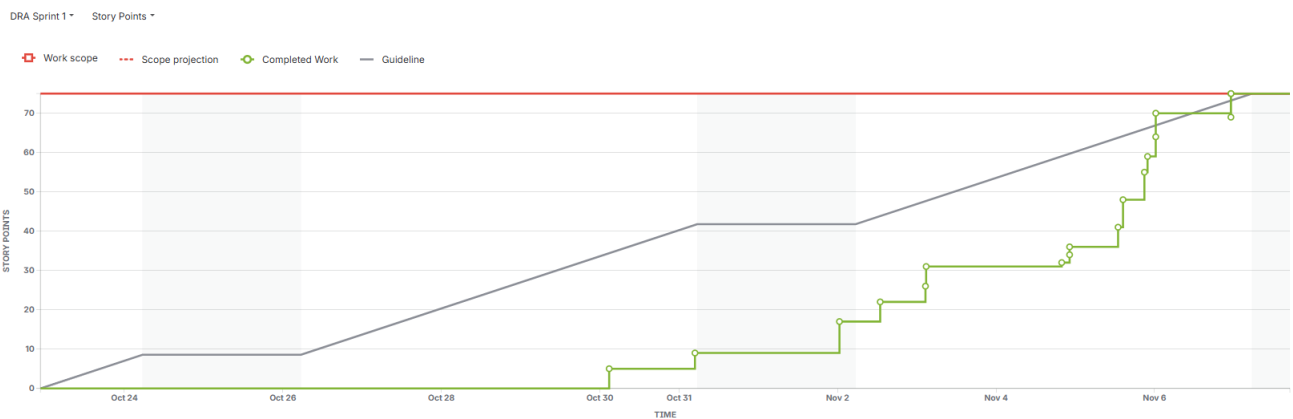
Epics, Stories and subtasks taken up in sprint 1: 9/11/2025 – 21/11/2025

<div> <input type="checkbox"/> DRA Sprint 2 9 Nov – 21 Nov (11 work items) </div>				0	14	28	Complete sprint	...
<div> <div>VS PM VH VB ...</div> </div>								
> <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



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:

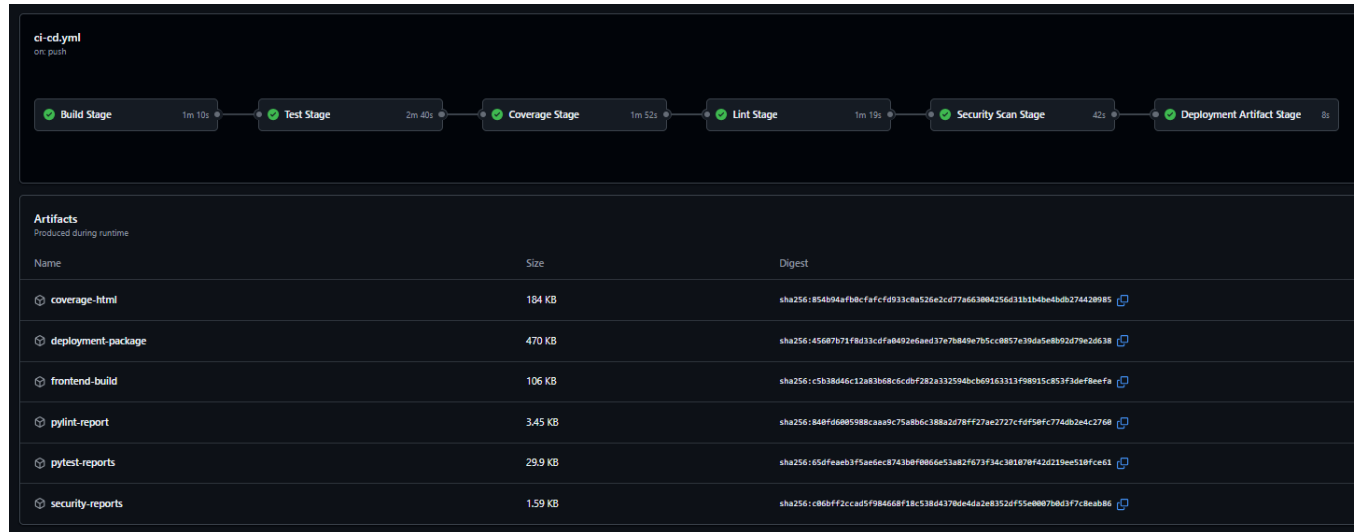
1. System must extract required skills, qualifications, and experience from the job description.
2. Skills in the resume must be matched against JD requirements using exact, synonym, and partial matching.
3. Fit percentage must be calculated using weighted scoring (skills, experience, education).
4. 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

Branch
main
develop
feature/DRA-17/suggest-templates
feature/DRA-184/NFR-anon-logging
feature/DRA-14/resume-scoring
feature/DRA-18/jd-matching
feature/DRA-15/gap-wordcount
testing/project-eval
feature/DRA-19-action-verbs
update-ci-cd-workflow
feature/DRA-13/Grammar_and_spellcheck
feature/DRA-22/batch-multiple-resumes
feature/DRA-21/anonymise-data
feature/DRA-23-26/NFRs
feature/DRA-28/structured-summary
feature/DRA-12/validate-date-formats
feature/DRA-11/merge-duplicates
feature/DRA-10/extract-key-skills
feature/DRA-9/highlight-incomplete-sections
feature/DRA-8/missing-sections

UNIT, INTEGRATION AND SYSTEM TESTS: (TEST STAGE)

```
Test Stage
succeeded 19 minutes ago in 2m 23s

▼ Run Unit Tests (with coverage enforcement)
58 src/utlis/perf.py          42    18    57%
59 src/utlis/timeit.py        15     0   100%
60 -----
61 TOTAL                    1680   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/utlis/perf.py          42    18     2     1    57%
179 src/utlis/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 Node.js
> 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 0s
> Install Cairo system dependencies 22s
> Install Security Tools 12s
▼ Run Bandit (Static Security Scan) 0s
  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 0s
  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_I_P47_Dynamic_Resume_Analyzer_CommitAndChill/PESU_RR_CSE_I_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 554ae7d21ac2985474a65a24836f3f98b62f35c7866b58988713fce774694c81
 27 Finalizing artifact upload
 28 Artifact security-reports.zip successfully finalized. Artifact ID 4587928727
 29 Artifact security-reports has been successfully uploaded! Final size is 1419 bytes. Artifact ID is 4587928727
 30 Artifact download URL: https://github.com/pestechnology/PESU_RR_CSE_I_P47_Dynamic_Resume_Analyzer_CommitAndChill/actions/runs/19194362755/artifacts/4587928727
> Post Setup Python 0s
```

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

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

Conversation 1 Commits 6 Checks 6 Files changed 38 +1484 -1058

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., `68 -> 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 `88` 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 `67` to `53` 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_ui_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_gramer`, the `base_feedback` (which contained `strengths`, `incomplete_sections`, etc) was being discarded. The function now correctly merges all results into `base_feedback` before returning.

Reviewers

- prerana2005 ✓
- VincentSharma05
- vishwambharaR01
- RakshitKakurje9
- Thaman-N
- v-s-v-s-h-w-a-s
- rbangimwar

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

You're receiving notifications because you modified the open/close 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:**
 - 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.
 - Fixed Missing Verb Suggestions:** Fixed a bug where action verb suggestions were calculated but *not added* to the final report if `include_grammar=False`.
 - 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

2 participants

Lock conversation

vrishank-na added 6 commits 2 days ago

- Scoring system implemented [6ba4e25](#)
- Merge branch 'develop' of https://github.com/pestechnology/PESU_RR_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](#)

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

prerana2005 approved these changes 10 hours ago [View reviewed changes](#)

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 pestechology/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 pestechology/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 pestechology/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 pestechology/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 vrishank-na	feature/DRA-14/resume-scori...	Today at 1:21 PM 9m 58s	...
Merge pull request #47 from pestechology/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.