# Final Test Report

Project Name: Fit-Track Pro – Personal Health and Fitness Tracker

Team: Abhay Aditya N, Aneesh Adithya SR, Atyul V Bhaskar, Amogh Madhu Kashyap, Vaibhav M Chittakki

Date: 15 May 2025

Version: 1.0

Tested via: GitHub Actions (CI/CD)

## 1. Test Summary

The testing phase for Fit-Track Pro was completed successfully as per the outlined test plan. GitHub Actions was used to automate the test workflows, including backend testing, API endpoint validation, and frontend linting.

## 2. Objectives

* Validate core functionalities: login, workout/diet logging, goal suggestions.
* Ensure accurate data flow between UI and backend.
* Confirm system responsiveness and cross-browser compatibility.
* Validate integration with the local LLM (google/gemma-2b-it).

## 3. Test Environment

* Frontend: ReactJS (latest)
* Backend: Flask (Python 3.10)
* Database: MySQL
* LLM: google/gemma-2b-it (Hugging Face) executed locally with transformers and accelerate
* CI Tool: GitHub Actions
* Browsers Tested: Chrome, Firefox
* Devices: Desktop, Android (Pixel 6), iOS (Safari)

## 4. Test Cases & Results

|  |  |  |
| --- | --- | --- |
| Test Case ID | Description | Result |
| TC01 | Valid login | Passed |
| TC02 | Invalid login | Passed |
| TC03 | Add new workout, diet list, sleep analysis | Passed |
| TC04 | Empty fields validation | Passed |
| TC06 | Fetch correct data | Passed |
| TC07 | Data format check | Passed |
| TC08 | Correct fitness tips shown | Passed |
| TC09 | Goal matching logic | Passed |
| TC10 | Handles unexpected AI queries gracefully | Passed |

## 5. Automation via GitHub Actions

Actions used:

* actions/setup-python for virtual env
* pytest for backend unit and API testing
* eslint for frontend code linting
* Triggered on: push, pull\_request, and scheduled nightly builds

Coverage:

* 95%+ unit test coverage
* Real-time feedback on each commit via status checks

## 6. Defects Found & Resolved

|  |  |  |
| --- | --- | --- |
| Issue ID | Description | Status |
| BUG-001 | Diet input crash with large entries | Resolved |
| BUG-002 | UI glitch on Safari | Resolved |
| BUG-003 | AI response overflow UI on small screens | Resolved |

## 7. Conclusion

All key functionalities and AI integrations are working as intended. The system has passed the full test cycle and is ready for production-level deployment and demonstration.