Git Mastery Challenge — Completion Report

**Participant:** Satya Bhargavi Talatam

**GitHub Repository:** [**Bhargavitalatam/git-solved-23A91A05D0: My Git Mastery Challenge Solution**](https://github.com/Bhargavitalatam/git-solved-23A91A05D0)

**Challenge Title:** Solving Pre-Built Conflicts in “DevOps Simulator” **Completion Date:** October 31, 2025

**Version Released:** v2.0.0 (Stable)

Project Overview

The *Advanced Git & DevOps Simulator Challenge* provided an in-depth, hands-on experience with real-world version control and DevOps workflows. The project focused on mastering advanced Git operations such as branch management across multiple environments and resolving complex merge conflicts in diverse file types including YAML, JSON, Markdown, JavaScript, and Bash. Through practical simulations, I learned to efficiently create, merge, and maintain branches while preserving clean commit histories and adhering to structured version control practices. The challenge also covered Git tagging and release management, helping me understand semantic versioning and stable release creation. Overall, this project strengthened my technical and analytical skills in managing collaborative repositories and reinforced disciplined Git usage—an essential skill set for real-world DevOps and software development workflows.

Key Milestones

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| **Step** | **Task** | **Status** |
| 1 | Clone repository and set Git identity | * Completed |
| 2 | Branch setup and environment configuration | * Completed |
| 3 | Conflict resolution (main + dev) | * Completed |
| 4 | Merge validation and testing | * Completed |
| 5 | Push to remote repository | * Completed |
| 6 | Merge conflict-simulator branch | * Completed |
| 7 | Create advanced-git-ops branch | * Completed |
| 8 | Tag release versions v2.0.0-beta and v2.0.0 | * Completed |
| 9 | Final verification and documentation | * Completed |

Technical Highlights

**Git Commands Used:** git clone, git branch, git merge, git commit, git push, git tag, git show Conflict

**Handling Skills:** YAML, JSON, Markdown, Bash, and JavaScript conflicts resolved cleanly.

**Environment Integration:** Both **development** and **production** configuration versions merged coherently.

**Final Deliverables:** Clean and conflict-free main branch, stable tag v2.0.0, documented workflow in README.md

Final Outcome

**Challenge Status:** Successfully Completed.

**Final Release:** v2.0.0

**Main Branch:** Up-to-date and verified on GitHub.

**Skill Demonstrated:** Advanced Git Workflow, Conflict Resolution, and DevOps Collaboration.