**Senior Project Weekly Status Report**

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**Project Title:** Mutest

**Project Description:**

Design and implement a tool that introduces controlled mutations into Python source code and reports a mutation to evaluate the effectiveness of the test suite.

**Technologies Used:**

Git, GitHub, pytest, AST (Abstract Syntax Trees).

Programming Language**:** Python.

**GitHub URL:** <https://github.com/vinniciuscastro/Senior-Project>

**Week 4: 10/11/25**

Overall Status (on-schedule, behind, ahead): Behind

Number of hours worked this week: 8 hours

Total number of hours worked on the project thus far: 26 hours

Number of total hours anticipated at completion: 103 hours

Accomplishments: This week I actually got a lot done, I finished the simple prototype, and created testing functions and unit tests but my tests are still not working so I don’t know if the prototype is working.

Challenges: My challenge is to fix errors and figure out logic.

Plans / Goals for next week: Finish the prototype and test it.

SPED Talk Insight (Briefly describe an insight or something interesting you learned from the SPED talks this week): This week I watched Julieta White about Argon2 (a password hashing algorithm). I found it interesting how Argon2 has 3 variants: Argon2d (data-dependent memory access), Argon2i (data-independent memory access), and Argon2id (Hybrid approach).

Other comments for the instructor: