**Workflow**

Our project workflow begins with a comprehensive understanding of the problem to establish a solid foundation. We then conduct thorough research on state propagation algorithms, specifically Runge-Kutta methods (RK4 and RK8), ODE solvers (ODE45, ODE78, and ODE113), and the Modified Picard-Chebyshev Iteration, while investigating propagators to understand data propagation and component interactions. Next, we plan the testing system, design test cases, define success metrics, and set up the necessary infrastructure. Implementing data generation algorithms using a suitable framework ensures robust data generation, followed by conducting feasibility tests to verify algorithm functionality and effectiveness. Successful feasibility tests lead to test runs to identify issues or areas for improvement before system implementation. During system implementation, we integrate all components to ensure functionality. Post-implementation, we conduct thorough testing and verification to ensure the system meets all requirements and performs reliably. We then conduct experiments to validate the system’s performance and explore potential optimizations. Throughout the experiments and testing phases, we collect and analyze data to identify any issues. Finally, we compile our findings, insights, and recommendations into a comprehensive report to effectively communicate the project outcomes. Regular weekly review meetings are held to discuss progress, challenges, and next steps, with adjustments made as needed based on ongoing findings and challenges.