# **4. Non-Functional Requirements**

## **4.1 Performance**

Load Testing: The system should handle 100 simultaneous users without performance degradation.

Response Times: Home page load within 3 seconds, real-time updates on parameter changes.

## **4.2 Usability**

User Testing: Regular usability testing with target user groups to refine the interface, particularly regarding accessibility.

# **5. Validation Strategy**

## **5.1 Validation Techniques**

Unit Testing: For individual components.

Integration Testing: For interactions between components.

User Acceptance Testing (UAT): Involving end-users to validate against SRS.

## **5.2 Success Criteria**

All critical requirements must be verified.

User feedback must indicate satisfactory usability and engagement.

# **6. Conclusion**

This SDD outlines the architectural and design approach for the NASA Psyche Mission Simulator, providing a clear roadmap for development and implementation. By adhering to these specifications, the project aims to deliver a robust and engaging educational tool for various user groups.