

Sprint 3 –Test Cases

Sprint	User Story / Tasks	Test Cases	Expected Outcome	Status
3.1	As a developer, I want to verify the performance of the vector database so that the AI Advisor retrieves accurate and efficient search results for immigration-related queries.	Verify Vector Database Accuracy	At least 95% of queries return accurate results.	Completed
3.2	As a student, I want the front-end to display AI-generated summaries of my immigration documents so that I can quickly understand the key points of my I-20.	Verify Front-End Display of AI Summaries. Test Responsiveness of the Summary Section	Summaries are displayed accurately and match backend outputs. The summary section is fully responsive on all screen sizes, including desktop, tablet, and mobile.	Completed
3.3	As a developer, I want the system to be optimized for performance and efficiency so that users experience faster processing times and smoother interactions.	Verify End-to-End System Workflow. Verify System Performance Under Load	The system processes I-20 uploads, generates summaries, and delivers responses seamlessly within 5 seconds total. The system remains stable under load with 50 concurrent users. Response times are under 5 seconds, and no crashes occur.	Completed

3.4	As a developer, I want to generate metrics on AI accuracy so that I can measure the system's performance and improve weak areas.	Verify Vector Database Accuracy	At least 95% of queries return accurate results.	Completed
3.5	As a student, I want pre-programmed immigration answers via the UI so that I can get instant responses to common queries.	Validate Accuracy of Pre-Programmed Answers	All pre-programmed answers are correct and match predefined FAQ outputs.	Completed
3.6	As a student, I want AI-generated immigration answers via the UI so that I can get dynamic responses to complex queries.	Test AI-Generated Answer Response Time	AI-generated answers load in under 3 seconds for all valid queries. At least 90% of users rate the responses as helpful.	Not Completed
2.6	As a developer, I want to fine-tune the AI model, so that it delivers more accurate and high-quality responses to user queries.	Does the fine-tuned model achieve higher performance metrics compared to the baseline? Are the improvements documented and validated against predefined test cases?	Fine-tuned model achieves higher performance metrics compared to the baseline. Improvements are documented and validated against test cases.	Not Completed