After accessing the Docker container, the relevant .cpp files were opened in Visual Studio Code for debugging and necessary corrections, which were then saved. The updated code was subsequently integrated into the Core Flight System (cFS), and its outputs were connected to the supplied telemetry Python script to enable precise, real-time data handling. To assess the robustness of the system, controlled faults were deliberately introduced, simulating anomalies that could cause the altitude drop to exceed the 1 km threshold within the specified 360-second limit. The entire simulation—demonstrating how the system responds when breaching the set threshold—was recorded on video, thereby providing clear validation of the integration process and the system’s ability to detect and respond to faults.