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Machine Learning Project- CSC602

Problem Statement: [Fighter Aircraft Pilot Ejection Success Rate Prediction](#)

Objective: To develop a machine learning model (logistic regression) that predicts the likelihood of a successful pilot ejection based on factors such as altitude, airspeed, ejection system type, and environmental conditions. The project will use synthetic data to address the unavailability of real-world datasets while simulating plausible aviation scenarios.

Key-Findings of the Project would be:

- Which factors(eg. altitude , ejection type) most strongly influence the Ejection issue ?
- Can a Logistic regression model reliably predict ejection outcomes using Synthetic Data ?
- How do environmental conditions affect the operational issue of the Aircraft ? and what kind of Technical or management error of the Aircraft affects the ejection ?