PROJECT REQUIREMENTS DOCUMENT

Project Name	Intelligrain

Functional Requirements

- Must allow the user to login (already have account info)
- Combine app:
  - Must display combine progress/quality in real time on a map
  - Must only be able to see data from it's combine
- Parent app:
  - Must display the finalized map of all combines with data points blended into a gradient for clearer understanding of the information.
  - Must be able to filter map data based on grade/grain characteristic
- Upload data from Jetson Nano microcomputer to the on-combine tablet to the Cloud.
- Must have the ability to export the current filtered map as jpg or pdf.

Technical/Performance Requirements

- Must use Flutter front end, Google Firebase, and Google Cloud Platform
- Must integrate with mapping software (minimal costs or FOSS)
- Must use Github and git for version control
- App must handle concurrent users and high data loads during peak usage times (harvest)
- Must comply with Ag data transparency regulations
- App must have a low latency response time, especially when displaying real-time grading data
- App must be able to work in an offline mode, allowing users to view previously downloaded data and maps without an internet connection