

# Logging

## Success Outcomes

- The system logs a successful or failed system event within 3 seconds.
- The system logs a successful or failed user event within 3 seconds.

## Failure Outcomes

- The system takes longer than 3 seconds to log an event after invocation.
- The log fails to save to the data store.
- The log is saved with incorrect information.
- A previously saved log is edited.
- The logging process interferes with user interaction.

## Classes/Interface

### **Public Class LogEntry**

- Attributes:
  - timestamp: timestamp of log entry.
  - logLevel: the level of the log, restricted to: Info, Debug, Warning, and Error.
  - logCategory: category of the log, restricted to: View, Business, Server, Data, and Data Store.
  - context: a short message detailing the nature of the logged event.

### **Public Class Logger**

- Methods:
  - Result createLog(string logLevel, string category, string context)
    - Uploads a log to the persistent data store.

## User Stories

- As a user I want:
  - Any personally identifiable information to be encrypted.
  - Any errors I encounter to be detailed and stored for future improvement.
  - Any data I delete to be removed from archived logs.
- As an administrator I want:
  - Accurate and relevant information to be logged in order to evaluate common errors.
  - To be able to easily obtain relevant logs to certain users or issues.