MICHIGAN STATE UNIVERSITY

Project Plan Presentation

UserClarity

The Capstone Experience

Team TechSmith

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Spring 2026



From Students…
…to Professionals

Project Sponsor Overview

- Software company specializing in screen capture and video creation
- Popular products: Camtasia, Snagit, Audiate
- Founded in 1987 in East Lansing
- Used by every Fortune 500 company
- Specialize in user-friendly design

TechSmith®



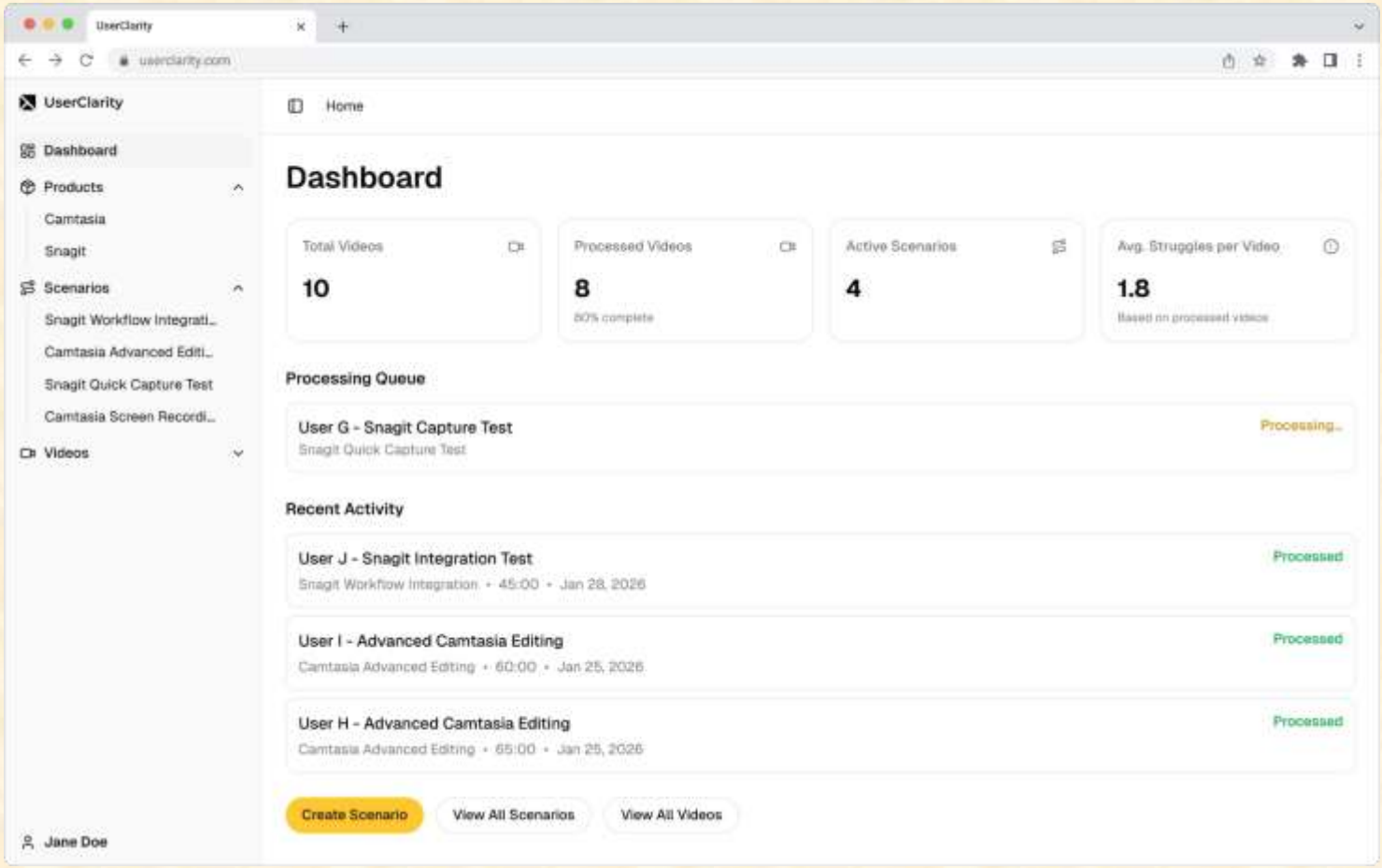
Project Functional Specifications

- Web app that analyzes UX usability test recordings
- Saves time by automating the review process
- Converts uploaded recordings to downloadable UX reports
- AI Pipeline analyzes videos to detect successes and struggles

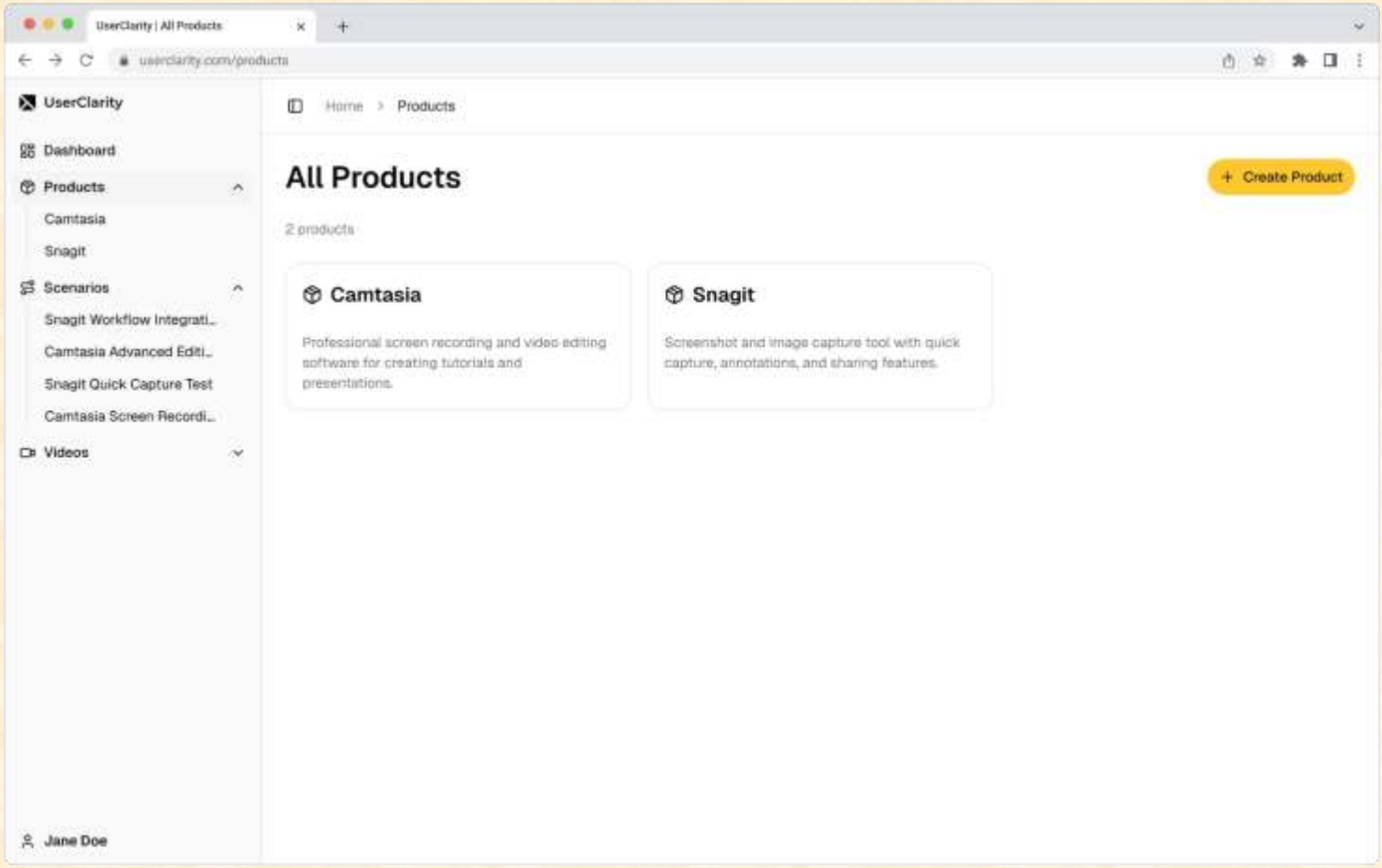
Project Design Specifications

- TechSmith branding
- Decluttered UI
- Ease of navigation and readability
- For product managers and UX researchers
- Detailed, dashboard-style design

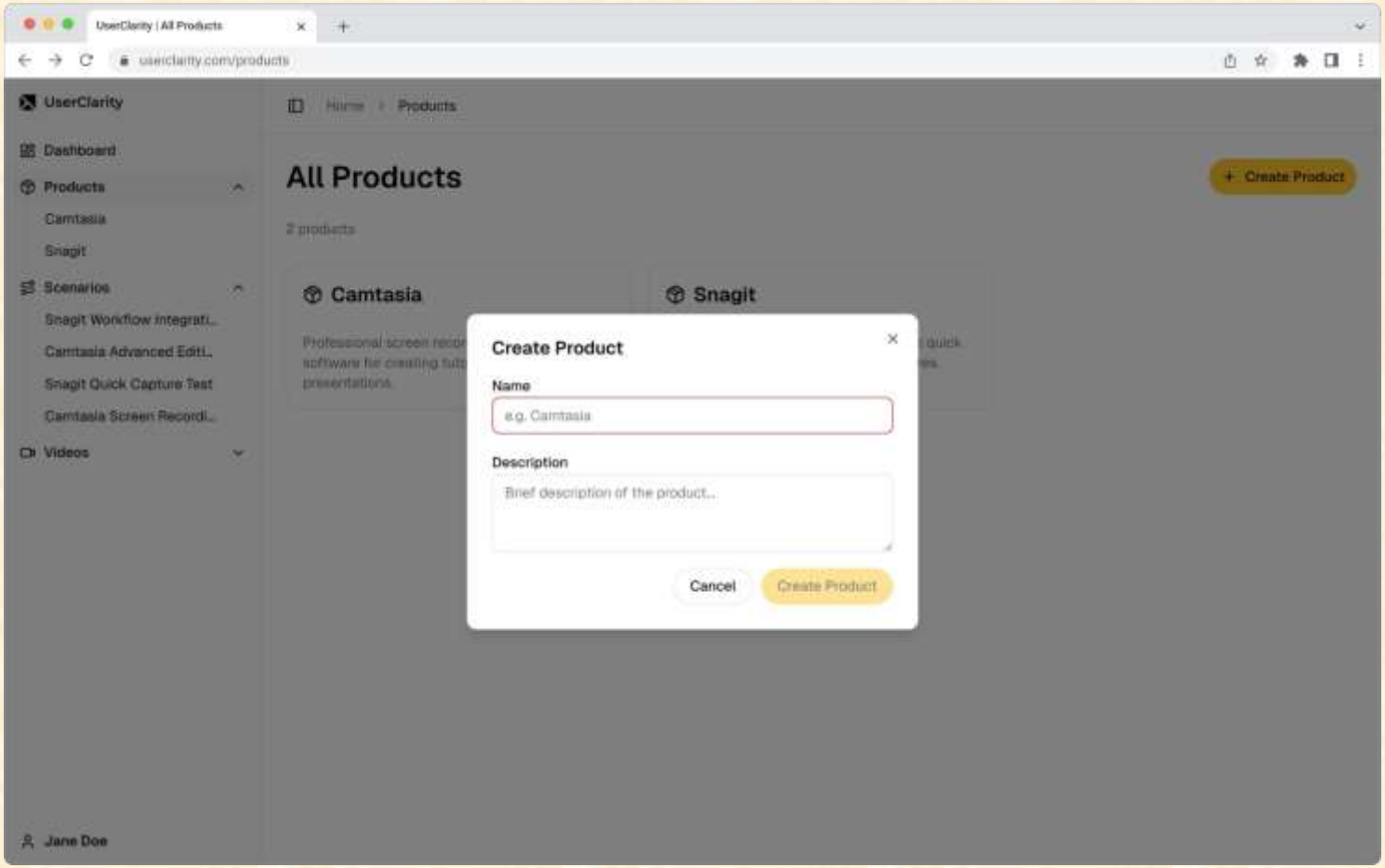
Screen Mockup: Dashboard



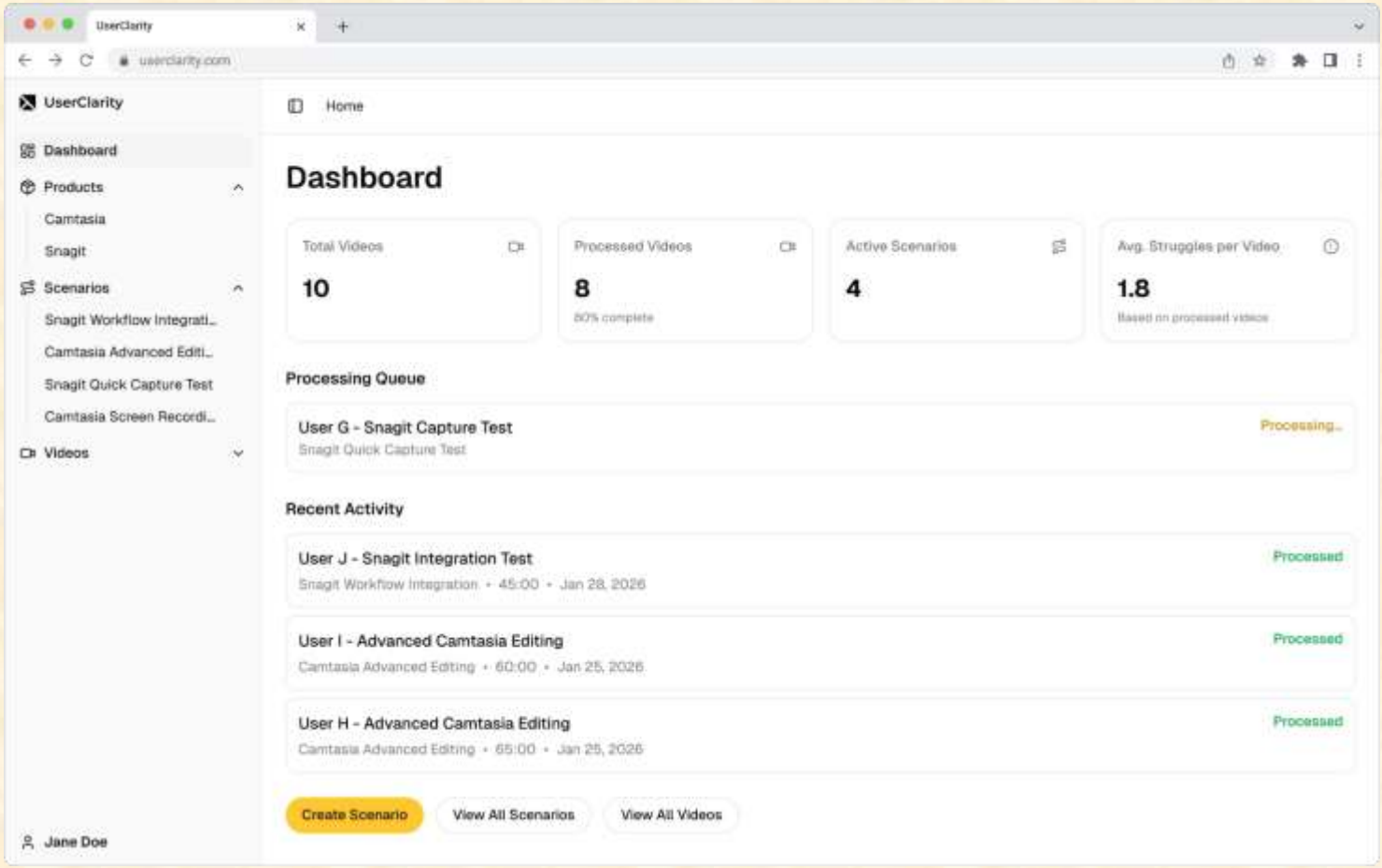
Screen Mockup: All Products



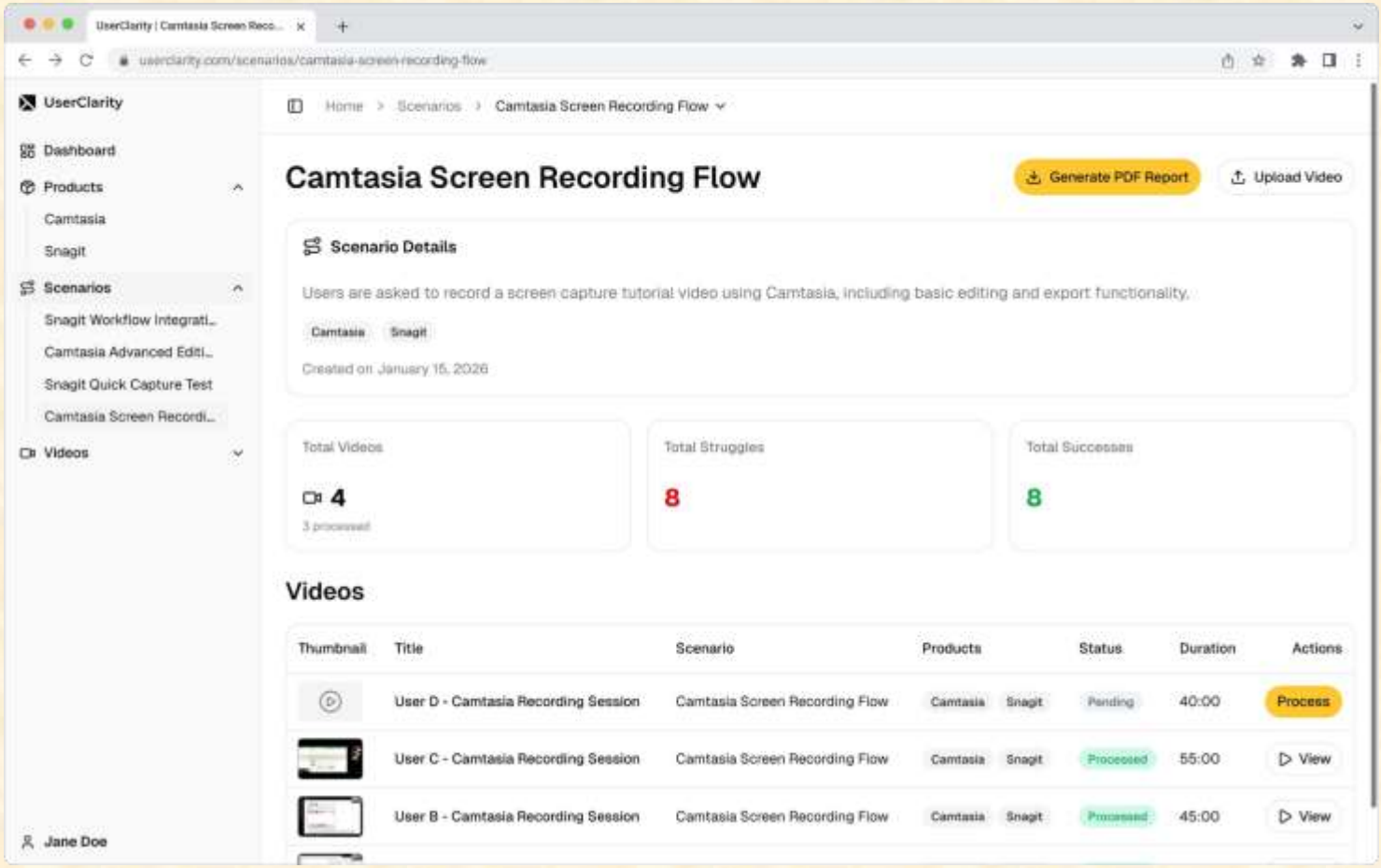
Screen Mockup: Create Product Modal



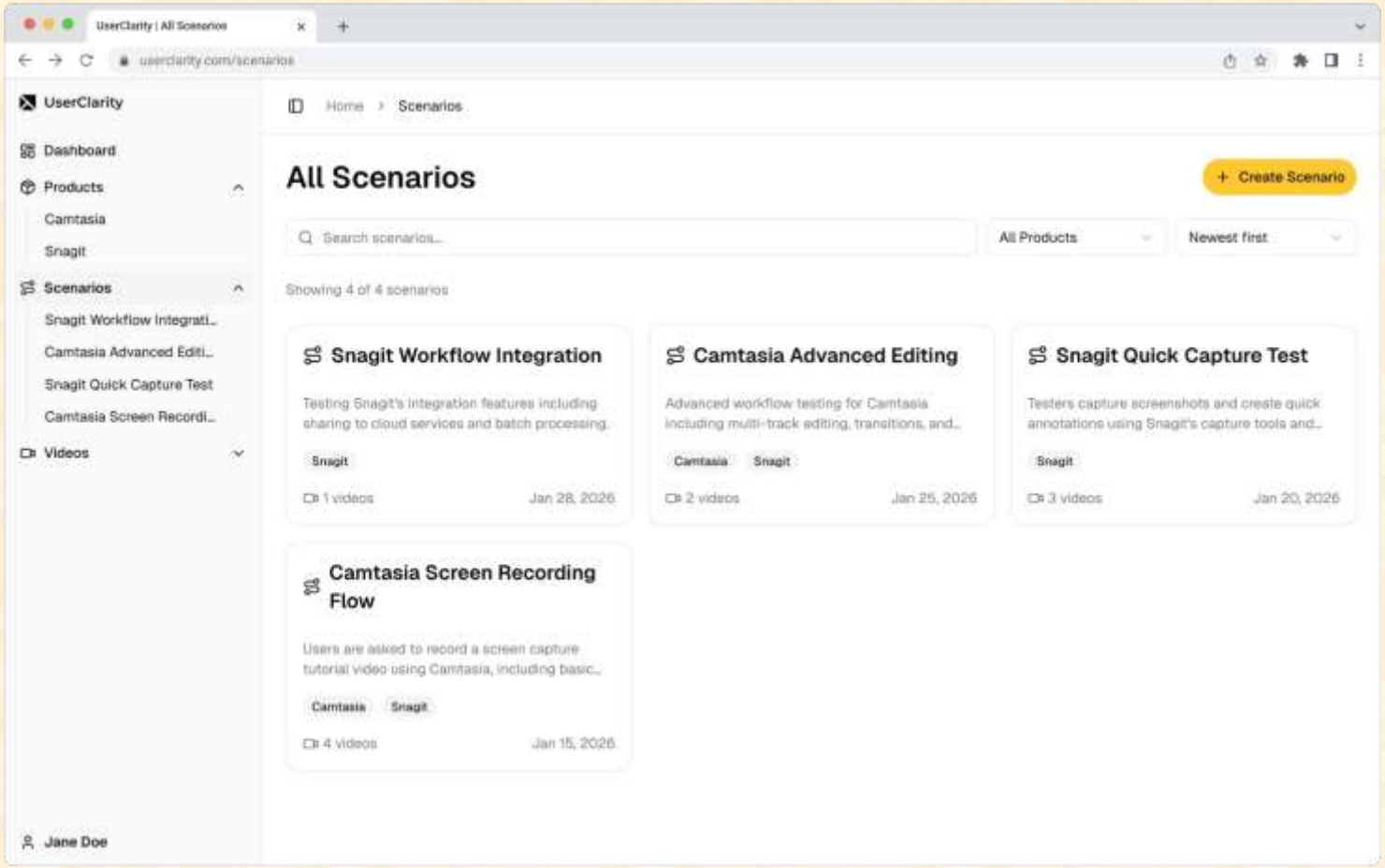
Screen Mockup: Create Scenario Page



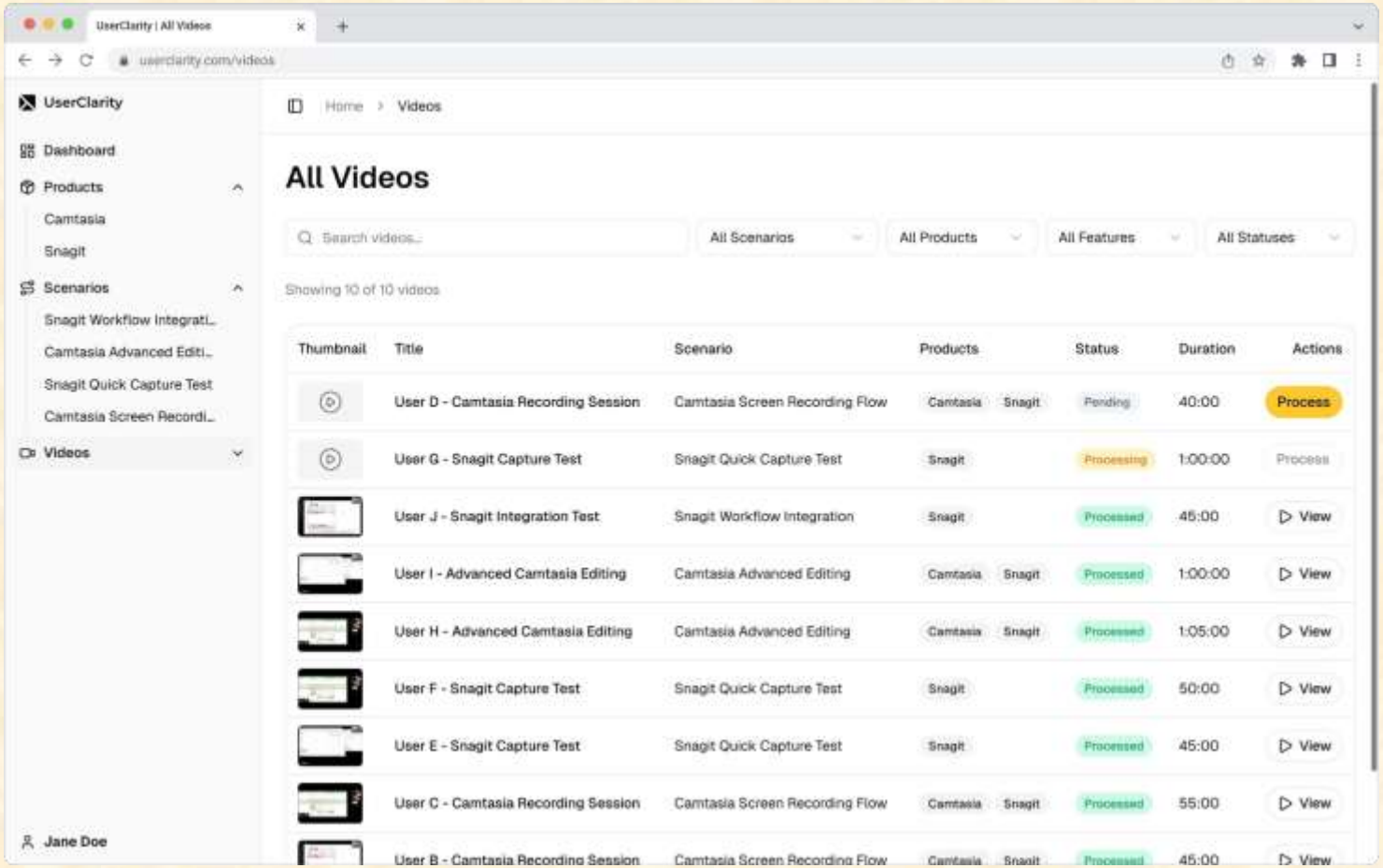
Screen Mockup: Scenario Detail Page



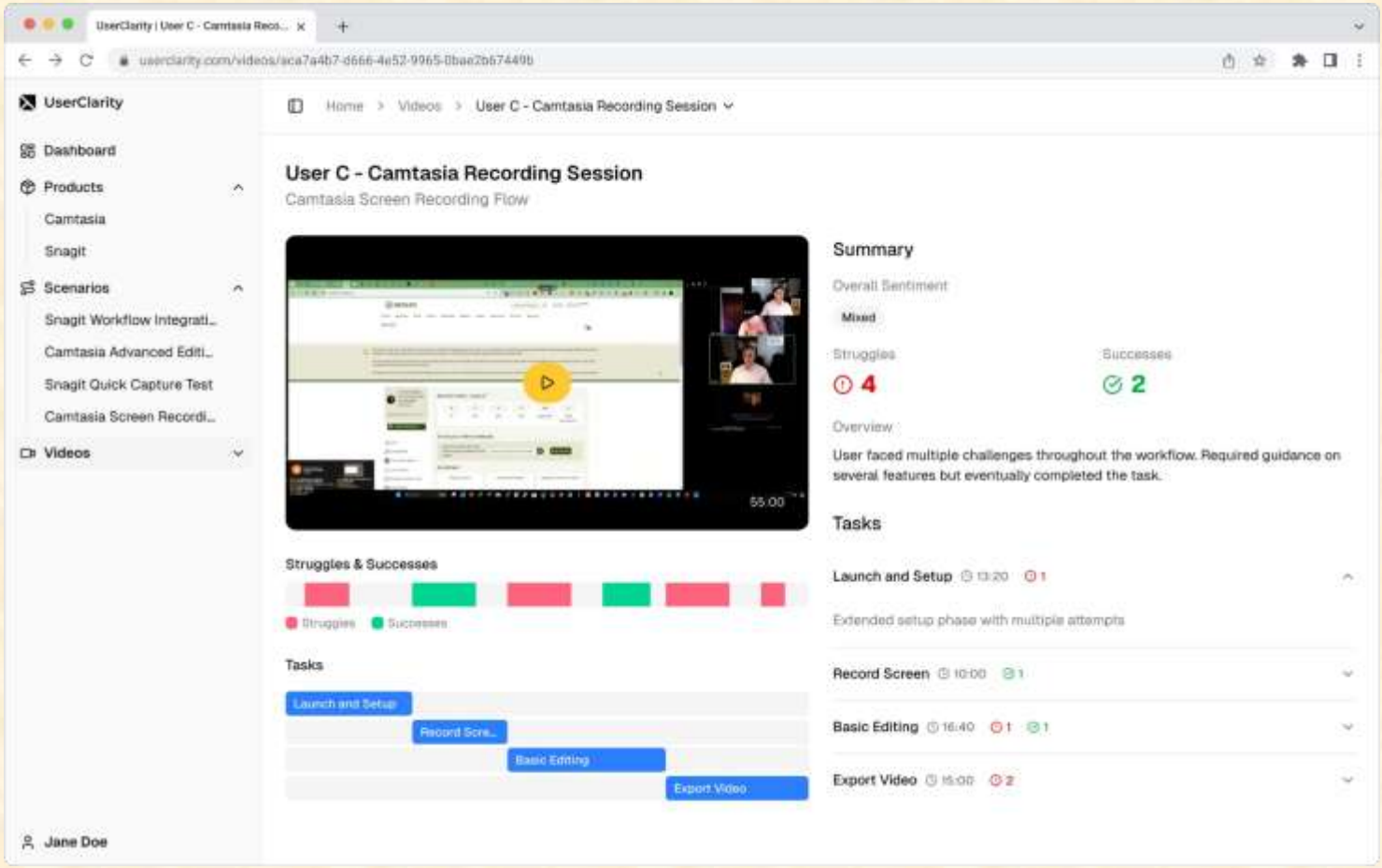
Screen Mockup: All Scenarios Page



Screen Mockup: All Videos Page



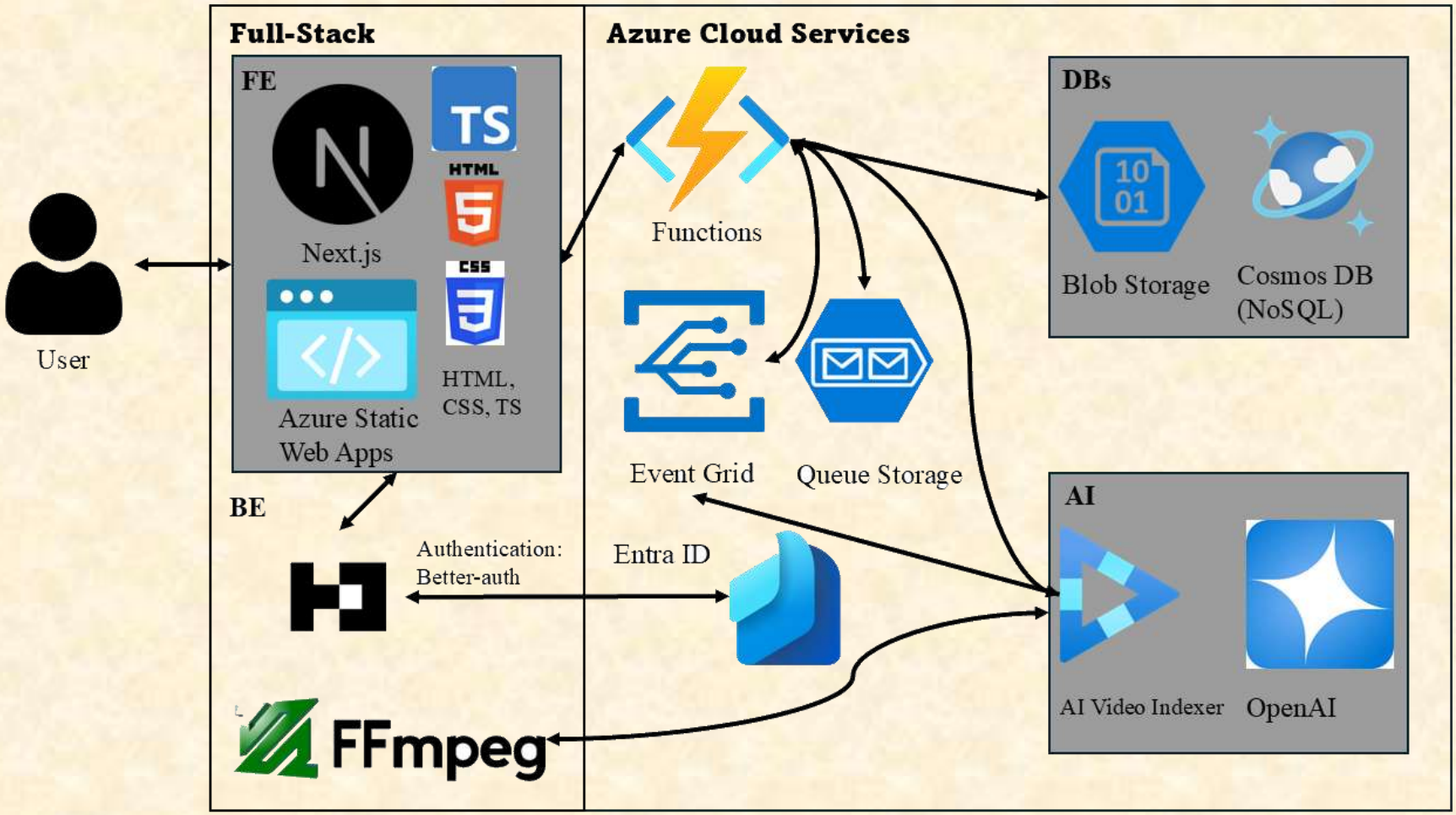
Screen Mockup: Video Detail Page



Project Technical Specifications

- Front End Web App in Next.js
- Better-Auth providing Microsoft Authentication
- Serverless Back End through Azure Functions
- Azure Blob & Cosmos (NoSQL) Data Storage
- AI Analysis using Azure Video Indexer & OpenAI
- Azure Event Grid & Queue for Event Pipeline aid

Project System Architecture



Project System Components

- Software Platforms / Technologies
  - Azure: Static Web Apps, Cosmos DB, Blob Storage, Event Grid, Queue, AI Video Indexer, OpenAI
  - Azure Functions: TS or Py
  - Microsoft Entra ID
  - Next.js: TS, CSS, HTML
  - Better-Auth

Project Risks

- Risk 1: Defining Successes and Struggles
  - Successes and struggles must be clearly defined so the AI can identify them
  - Provide explicit cues (facial expressions, language) to LLM and refine definitions through testing
- Risk 2: Handling Arbitrary Footage in Diverse Formats
  - Uploaded videos may vary in format, complicating processing and storage
  - Restrict uploads to a single video and design a clear UI that balances direction with the amount of valid formats
- Risk 3: Video Indexer Output Size
  - Video Indexer outputs may exceed LLM's context window
  - Filter, compress, and prioritize relevant data determined by an LLM
- Risk 4: LLM Hallucinations and Unpredictability
  - LLM-generated insights may be inconsistent or inaccurate
  - Compare 5 random samples from report against their RAW data and constrain outputs with structured formats

Questions?

