Sprint 2 Plan

Product Name: ChatCut
Team Name: ChatCut Development Team
Sprint Completion Date: November 4, 2025
Revision Number: 2.0
Revision Date: October 22, 2025

Goal

We will establish the backend infrastructure to handle natural-language editing requests from the frontend. This includes processing user prompts, sending them to an AI model for interpretation, and receiving a structured list of Premiere Pro API calls required to perform the requested edits. Additionally, this sprint will focus on researching how to implement native video transformations (e.g., zoom, pan, rotate) and developing methods to extract individual frames from edited clips for downstream processing.

Task Listing (Organized by User Story)

User Story 1 (US 2.1)

“As a user, I want to describe how I want my video edited in plain English so that ChatCut can automatically perform the correct actions.”

Tasks

- Integrate OpenAI backend to process natural-language edit requests – 5 hours
- Design input schema for sending prompt requests and receiving structured responses – 3 hours
- Implement endpoint to return list of required API calls based on interpreted user intent 5 hours
- Test backend response accuracy and latency – 3 hours

Total for User Story 2.1: 16 hours

User Story 2 (US 2.2)

“As a user, I want ChatCut to know which Adobe Premiere Pro functions to call for my requested edit so that it can perform the change automatically.”

Tasks

- Analyze Premiere Pro APIs relevant to editing operations – 4 hours
- Map AI model outputs to actual API call syntax and parameters – 5 hours
- Create function layer to trigger correct API call sequence – 4 hours
- Validate results with sample edits and adjust mappings – 3 hours

Total for User Story 2.2: 16 hours

User Story 2 (US 2.3)

“As a user, I want ChatCut to recognize objects and elements in my video so that I can make edits that target specific items (like ‘zoom on the person’ or ‘blur the logo’).”

Tasks

- Research existing video object detection and recognition models – 4 hours
- Evaluate integration options for TensorFlow or OpenCV-based model – 4 hours
- Prototype frame extraction and inference pipeline – 5 hours
- Document findings and recommend model for full implementation – 3 hours

Total for User Story 2.2: 16 hours

Infrastructure and Spikes

Spikes

- Investigate OpenAI API endpoints and response formats relevant to prompt interpretation – addressed under *User Story 2.1*.
- Explore methods for translating model outputs into structured Premiere Pro API actions – addressed under *User Story 2.2*.

Infrastructure Tasks

- Configure the development environment for seamless communication between the Premiere Pro scripting interface and Python backend – 4 hours.
- Test and validate bidirectional data exchange between Premiere Pro and the external Python service – 4 hours.
- Establish environment variables and permission settings required for API integration – 2 hours.
- Document the full setup and configuration steps for backend–frontend connectivity – 2 hours.

Total for Infrastructure and Spikes: 12 hours

Sprint 2 Total Estimated Effort: 48 hours

Team Roles

Team Member	Roles for Sprint 2
Dessy Bonev	Lead Developer / UI Engineer
Neel Billimoria	Backend Developer / DevOps
Hari Raghavan	Product Owner / Developer
Akhil Datla	QA Tester / Automation Support
Levi Laden	Documentation Lead / Support Developer
Avi Das	UX Designer / Research Support

Initial Task Assignment

Team Member	User Story & Initial Task
Dessy Bonev	US 2.2 – Analyze and map Premiere Pro API calls
Neel Billimoria	US 2.1 – Integrate OpenAI backend and define schema
Hari Raghavan	US 2.1 – Develop endpoint for returning structured API call results
Akhil Datla	US 2.3 – Document and evaluate object recognition models
Levi Laden	US 2.2 – Analyze and map Premiere Pro API calls
Avi Das	US 2.3 – Document and evaluate object recognition models

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Initial Burnup Chart

The initial burnup chart for **ChatCut Sprint 2 – AI Integration** will be maintained in the lab to track overall progress.

- **X-axis:** Days in Sprint (Oct 22 – Nov 4)
- **Y-axis:** Cumulative hours completed (out of 48)

The chart will be updated during each Scrum meeting to reflect total work completed and to visualize progress toward the sprint goal of implementing OpenAI-driven backend interpretation and API mapping.

Initial Scrum Board

A physical Scrum board labeled **“ChatCut – Sprint 2 (AI Integration)”** is located in the lab.

Columns:

- User Stories
- Tasks Not Started

- Tasks In Progress
- Tasks Completed

Each user story and its associated tasks are represented by color-coded index cards organized by row to show current progress and ownership.

Scrum Times

Scrum meetings will continue three times per week to ensure consistent communication and progress tracking:

- **Monday 10:00 AM – 10:15 AM**
- **Wednesday 10:00 AM – 10:15 AM**
- ****Thursday 3:30 PM – 3:45 PM ** (TA / Tutor check-in session)**

End of Sprint 2 Plan – ChatCut