**Design Document**

**Title:** Video Sharing Platform for Biomimetic and Cognitive Robotics Lab

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**Elevator Pitch**

The Video Sharing Platform aims to organize a collection of lab videos related to animal behavior recordings. This project will create a user-friendly platform where users can easily search, filter, and retrieve these videos based on various aspects such as research focus, animal type, and animal behavior etc. The objective is to enhance the accessibility and usability of these valuable animal recording resources, and encourage related users to share any valuable resource with us.

**Designs and Plans for Technical Implementation**

Technical Stack: HTML, CSS, JavaScript for the frontend, and Node.js with Express for the backend.

Database: Implement a NoSQL database (MongoDB) to store video metadata, including title, description, tags, and category.

User Interface (UI): Design an intuitive UI for searching, filtering, and categorizing videos.

User Registration and Authentication: Basic user registration and login functionality.

Categorization System: Develop a system for categories and tags to videos.

Search and Filter: Enable users to search for videos based on keywords and categories.

**Tentative Schedule for Project**

1: Project setup, database design, and initial UI mockup.

2: Implement user registration and login features.

3: Develop video categorization and tagging system.

4: Create search and filter functionality.

5: User testing and bug fixing.

6: Finalize UI, documentation, and project presentation.

**Data Source and Nature of Data**

Data Source: Lab video collection related to animal behavior.

Nature of Data: Video metadata including title, description, tags, and category.

**Description of Sample Use Cases**

User Registration and Login: A user registers on the platform, logs in, and accesses the categorized lab videos.

Searching for Videos: A user searches and uses filters to narrow down results for animal recording videos.

Uploading Related Videos: A user has the ability to upload their animal related videos in order to enhance our video resources and database.

Application Server

(Node.js with Express)

User authentication an authorization

HTTP requests/response

API connection

Database

(MongoDB)

User Interface

(Web-Based Platform)

Interact with the platform

Include user registration and login, search and filter options

Database queries to perform create, read, update, delete