

# Capstone Project Proposal

## General Information

**Project name:** Anaheim Ballet Website

**Author:** Chris Lagunas

**Project organization:** N/A (individual capstone)

**Project manager:** Professor Landreth

**Date (revised):** 01/10/26

## Project Overview and Project Objectives

**State the Problem:** Many local ballet and arts organizations rely on outdated or cluttered websites that fail to clearly communicate performances, training programs, and community outreach. Poor usability, limited interactivity, and difficult content updates reduce audience engagement and accessibility.

**Background:** This project involves the design and development of a modern, responsive web application for **Anaheim Ballet**, a professional ballet organization. The website serves as a centralized digital platform for audiences, students, and community members to access information about performances, ballet education, outreach programs, and organizational leadership. The project emphasizes clarity, usability, and maintainability while simulating real-world nonprofit arts organization needs.

### Project Objectives:

- Develop a React-based frontend with structured navigation and modern UI/UX
- Implement a Node.js / Express backend with RESTful APIs
- Integrate MySQL (via MAMP) for persistent data storage
- Support key user-facing features:
  - Performances & events calendar
  - Ballet school and faculty information
  - Outreach program documentation
  - Image gallery
  - Contact and newsletter signup forms
- Persist newsletter subscriptions and contact messages to the database
- Apply consistent ballet-inspired branding and accessibility-conscious design
- Produce professional documentation and a working demo suitable for portfolio use

**Challenges:** Balancing scope as a solo developer, ensuring clean UX, database design integrity, and managing time effectively.

**Benefits and Opportunities:** A portfolio-ready full-stack project, demonstrating web development skills and producing reusable boilerplate for future nonprofit/arts sites.

## Project Scope

The project will deliver a professional, screen-based web application with a React front end and MySQL backend. It will include CRUD functionality, an admin panel, and professional UI features such

as a gallery. It will not include real payment systems; ticketing and other commerce flows will be mocked.

Stakeholder Name	Role(s)	Responsibilities
Chris Lagunas	Developer / Product Owner	Requirements, design, implementation, testing, demo

## Project Completion

Completion Criteria:

- The application builds and runs successfully
- All major pages render correctly and are navigable
- Backend APIs store and retrieve data from MySQL
- Newsletter and contact forms persist data correctly
- Events, gallery, and class schedule features function as designed
- Documentation and demo artifacts are submitted

## Work Breakdown Structure

ID	Task	Dependencies	Status	Effort Hours	Cost	Start Date
1	Requirements draft (pages, data model, user stories)	—	Planned	8	\$0	Week 1
2	Wireframes & IA	1	Planned	6	\$0	Week 1
3	MySQL schema & seed data	1	Planned	10	\$0	Week 2
4	Backend REST (Node/Express)	3	Planned	16	\$0	Week 2
5	React frontend (public pages)	2,4	Planned	20	\$0	Week 3
6	Admin UI (CRUD)	3,4,5	Planned	14	\$0	Week 4
7	Auth/roles (basic)	4,5	Planned	8	\$0	Week 5
8	Accessibility pass (a11y)	5	Planned	6	\$0	Week 6
9	Testing (unit/integration)	4,5,6	Planned	12	\$0	Week 6
10	Demo screencast + docs	1–9	Planned	6	\$0	Week 7

# Project Completion

- Project Completion Criteria:
- 1. Application compiles and runs successfully.
  - 2. CRUD operations and MySQL persistence verified.
  - 3. Admin role can manage content.
  - 4. Accessibility checks passed.
  - 5. Demo and documentation delivered.

# Assumptions and Constraints

ID	Description	Comments	Type	Status	Date Entered
1	Solo developer; limited time	Prioritize MVP	Constraint	Open	08/24/2025
2	Mock site (no real payments/email)	Simplifies scope	Assumption	Open	08/24/2025
3	Use open-source libraries	React, Express, testing libs	Assumption	Open	08/24/2025
4	MySQL available locally	MAMP/Docker acceptable	Assumption	Open	08/24/2025

Risk Management

Event Risk	Risk Probability	Risk Impact	Risk Mitigation	Contingency Plan
Schedule overrun	Medium	High	Reduce scope to MVP; weekly checkpoints	Drop non-critical fe
Data model rework	Medium	Medium	ERD review before coding	Use migration scrip
Auth complexity	Low	Medium	Keep roles simple (admin/public only)	Secure admin route
Accessibility gaps	Medium	Medium	Run checks early	Fix critical issues o

## Change Control Log

ID	Change Description	Priority	Originator	Date Entered	Date Assigned	Evaluator	Status
1	Added Outreach Program page	Moderate	Chris	12/1/25	—	Chris	Completed
2	Added Newsletter DB persistence	Low	Chris	12/12/25	—	Chris	Completed

## Roles and Responsibilities

Name	Team	Project Role	Responsibility
Chris Lagunas	—	Developer / Tester	Build features, write tests, demo

## Project Schedule

This project is planned over 8 weeks. Each week aligns with tasks in the WBS.

Week	Tasks
1	Requirements draft, Wireframes
2	MySQL schema, Backend setup
3	Backend REST endpoints, Frontend initial pages
4	Frontend completion, Admin UI start
5	Admin UI finish, Auth roles
6	Accessibility improvements, Testing begins
7	Testing continues, Documentation
8	Final testing, Demo screencast, Submission



## **Cost Estimate**

No direct costs anticipated; project will use local development tools and open-source software.

Issue Log

ID	Issue Description	Project Impact	Action Plan/Resolution	Owner	Importance
1	React router not rendering on refresh	Delays public pages	Configure fallback routing	Chris	Med
2	MySQL schema mismatch after refactor	CRUD failures	Update DAO/queries	Chris	High