

CSE 7319 – Software Architecture & Design

Project Proposal

Due Date: Third Friday of Class

This proposal is the first step in your Term Project, which is due at the end of the semester. You may choose one of the following project options:

- Option 1: Develop a software application using Microservices Architecture as the primary style. You may use Docker for containerization and Kubernetes for orchestration as part of your deployment method, along with an optional CI/CD pipeline for automated build, test, and deployment.
- Option 2: Propose and implement a software application of your own design that fits within the scope of software architecture and includes at least one well-defined architecture style. Deployment methods (e.g., Docker, Kubernetes, cloud services) may be selected based on your project needs.

Project Title

Give your project a short, descriptive name.

Project Overview

1. Main Functions – Describe what your system will do and the problems it will solve.
2. Expected Results – Describe the expected outputs, outcomes, or benefits.
3. Prototype Screens – Include simple static mockups or screenshots of key screens. Keep them intuitive.

Project Design

1. Primary Architecture Style – Identify your main architectural approach (e.g., Microservices, Event-Driven, Client-Server). If your design incorporates multiple styles, clearly indicate the primary style and explain the rationale for its selection.
2. Architecture Diagrams – Include a clear, high-level diagram that illustrates the major components of your system and how they interact.

Project Implementation Plan

- Platform & Tools – List languages, frameworks, and platforms (e.g., Java + Spring Boot, Python + Django, Node.js, React, .NET, Docker, Cloud).
- Deployment – Briefly state how you will deploy (e.g., Docker + Kubernetes).
- Timeline – Main steps: proposal, prototype, core features, testing, final demo.

- Team Roles – If working in a team, list who will handle which parts.

Proposal Deliverables

- Written proposal (this document)
- Proposal presentation (in class, third Friday)
- Initial architecture diagrams