# CS 255 System Design Document Template

This template lays out all the different sections that you need to complete for Project Two. Each section has guidance to prompt your thinking. You will need to continually reference the interview transcript as you work to make sure that you are addressing your client’s needs. There is no required length for the final document. Instead the goal is to complete each section based on what your client’s needs are. Remove this note when you are finished, and replace all bracketed text with the relevant information.

## UML Diagrams

### UML Use Case Diagram

*A diagram of a driver pass

AI-generated content may be incorrect.*

### UML Activity Diagrams

*A diagram of a test

AI-generated content may be incorrect.A screenshot of a flowchart

AI-generated content may be incorrect.*

### UML Sequence Diagram

*A diagram of a software project

AI-generated content may be incorrect.*

### UML Class Diagram

*A diagram of a computer program

AI-generated content may be incorrect.*

## Technical Requirements

* Hardware:
  + The system shall use cloud-based servers with scalability to handle 1000+ concurrent users
  + The system shall use scalable cloud storage for user data, lessons, tests, and logs
* Software:
  + The system shall be compatible with major operating systems like Windows, macOS, and Linux
  + The system shall support popular browsers, e.g., Chrome, Firefox, Safari, Edge
* Tools and Frameworks:
  + The system shall be hosted on a cloud platform such as AWS or Azure for scalability
  + The system shall implement HTTPS, SSL/TLS, and encryption for secure data transmission
  + The system shall use automated testing tools and dependency check tools for security
* Infrastructure:
  + The system shall be designed with horizontal scalability in mind to accommodate growth
  + The system shall implement automated backup and recovery to prevent data loss