Term: Fall 2024 **Subject:** Computer Science & Engineering (CSE) **Number:** 512

Course Title: Distributed **D**atabase **S**ystems (CSE 512)

GROUP PROJECT PROPOSAL TEMPLATE

Project Title:

(Propose a project title)

Team Name and Members:

(Include team name, team member names, and student ID)

1. Introduction

1.1 Background

(Provide a brief background on the topic and the importance of distributed database systems in that context. Discuss any relevant literature, existing solutions, and gaps that your project intends to address.)

1.2 Problem Statement

(Clearly define the problem that your project aims to solve. Explain why this problem is significant and the potential implications of solving it.)

1.3 Objectives

(Outline the main objectives of your project. Use bullet points for clarity. For example: To design and implement a [specific type] distributed database system. To evaluate the system's performance under various conditions. To explore techniques for data consistency, availability, and scalability.)

2. Project Description

2.1 System Design

(Provide a high-level overview of the system design. Discuss how you plan to address concepts like data partitioning, replication strategies, fault tolerance, and query processing. Include a preliminary architecture diagram if applicable.)

2.2 Implementation Plan

(Describe how you intend to implement the project, including the programming languages, databases, and tools you will use. Specify any frameworks or libraries that will support your development.)

2.3 Data Strategy

(Explain the data you will use in your project. Include details about data selection, sources, and how you plan to ensure data privacy and compliance with regulations)

3. Methodology (Include at least three possible techniques to be used)

3.1 Technique 1

(Describe the possible technique to be used)

3.2 Technique 2

(Describe the possible technique to be used)

3.3 Technique 3

(Describe the possible technique to be used)

3.4 Technique 4

(Describe the possible technique to be used)

3.5 Technique 5

(Describe the possible technique to be used)

4. Evaluation Plan

4.1 Metrics for Evaluation

(Specify the metrics you will use to evaluate your system, including performance metrics (e.g., response time, throughput), scalability, and fault tolerance.)

4.2 Expected Outcomes

(Discuss the expected outcomes of your project. What key features and functionalities do you aim to demonstrate?)

5. Timeline

Include a timeline with key milestones and deadlines. You can use a table format or a Gantt chart to illustrate your schedule.

Milestone	Start Date	End Date	Team Member Responsible For

6. Conclusion

(Summarize the proposal and reiterate the significance of the project. Discuss the potential impact of your project on the field of distributed database systems)

References

(Cite all the references and resources)