DS Lab (CI371) Mini-Project Notice (ODD 2024)

Dear Students,
Read these instructions carefully

1. **Group size:** 3-5 students
2. It is mandatory to use Data Structures concepts covered in the syllabus. Projects must showcase the implementation of data structures and their application in solving real-life problems.
3. **Project Evaluation Phases (20 Marks):**

   Phase 1: **Synopsis Submission in your respective labs (Lab B)**
   (Date: 26th – 31st Aug 2024) **2 Marks**
   The synopsis should be 1-2 pages, including:
   - Project Title
   - Brief description of your project, including features.
   - Explanation of the data structures used with a class diagram or other relevant diagrams.
   - Mapping of data structures to real-life problems or applications.

   Phase 2: **Final Project Submission in Lab Week (Lab A)**
   (Date: 25th Nov - 1st Dec 2024) **18 Marks**
   Things to be evaluated: Project idea (topic), creativity, data structure implementation, OOP concepts, viva, and project report.

Project Report Structure:
1. **Title Page**
2. **Table of Contents**
3. **Summary**
   - Brief overview of the project
   - Objectives
4. **Introduction**
   - Background and Context
   - Problem Statement
   - Project Objectives
   - Scope of the Project
5. **System Requirements**
   - Functional Requirements
6. **Design and Implementation**
   - Class Diagrams
   - Data Structure Implementations (e.g., Array, Stack, Queue, Linked Lists, Trees, Graphs)
   - Algorithms and their complexities (e.g., Searching, Sorting)
   - Code snippets demonstrating the use of OOP and data structures
   - Output screen shots with description.
7. **Conclusion**
   - Summary
   - Achievement of Objectives
   - Future Work and Recommendations
8. **References**
   - List of all sources cited in the report