Bahria University, Lahore Campus

Course Instructor: Fatima Zulfiqar **Course Code:** CSL 221
Subject: Data Structures and Algorithm **Semester:** BS (CS) - 3 (A) Morning (Spring 23)

Basic Guidelines:

1. **Group Size:** The project should be completed by a group of up to three members. The size of the group will be according to the scope and size of the project.
2. **Project Title:** The project title should be mentioned at the top of the source code as a comment.
3. **Data Structure and Algorithm (DSA) Concepts:** The project should utilize dynamic data structures such as linked list, trees, and graphs.
4. **Validation Check:** The project should also include checks to address all exceptions/ run-time errors or unexpected behaviors.
5. **Code Documentation:** The code should be properly commented and indented to ensure readability and maintainability.
6. **Project Requirements:** The project should meet the requirements specified by the instructor and should demonstrate a practical implementation of DSA concepts.
7. **Presentation:** The group should be prepared to present their project to the class and explain the DSA concepts used in the project.

Deliverables: [3+7+10] Marks

1. **Project Presentation:** The project presentation should include an introduction that explains the purpose of the project, its objectives, and motivation. It should also include a brief overview of the functions used in the project, along with one-line details. The presentation should be concise and graphical, with minimal text. Finally, the presentation should include a demo video of the project.

2. **Source Code:** The source code should be properly commented and indented to ensure readability and maintainability. Each function should have a brief description of what it does, and the code should follow standard coding conventions.

3. **Oral Presentation and Viva:** The group should be prepared to give an oral presentation on their project, explaining the different OOP concepts used, the purpose of the project, and the functionality of each function. The presentation should be clear, concise, and engaging, with appropriate visual aids to support the content.

Deadline:

The deadline for the project submission is **June 12, 2023**. Presentations/ Viva will be conducted between **June 12, 2023 – June 16, 2023**. Each group will be given maximum of **20 minutes** for presentation/demo and viva.