**National University of Computer & Emerging Sciences, Karachi**

**Computer Science Department**

**CL 217 – Object Oriented Programming Lab**

**Spring 2023**

**Project Guidelines:**

Guidelines related to semester Project are given below:

* **A group of Maximum 03 students is allowed**. Better to work in team, as “Alone we can do so little; together we can do so much.” ~ Henry Keller
* You may choose any project you want but two groups are not allowed to work on same project idea. Either of the two have to change the idea in case of a clash.
* Students are required to submit a working project that solves a problem and includes wide range of OOP concepts. A project is weighted in the Lab score and it has following rules and guidelines.
* **For Proposal submission, Mention the project title, Group members’ name (mention the group leader name as well), platform and the language you would be using, and a brief abstract of your project (not more than 100 words) in the** **shared excel sheet**.
* Only the group leader is requested to fill in the details in the excel sheet shared in Google Classroom.
* It is mandatory to fill in the sheet using NUCES email id.
* The project must solve a real-world problem and try to cover OOP concepts in it as we have done in lab, like;
  + Abstraction
  + Classes and Objects
  + Encapsulations
  + Inheritances
  + Polymorphism (Both overloading and overriding)
  + Conditional and looping structures
  + Data structure such as arrays, array of objects, array lists, etc.
  + Constructors and destructors
  + Filing and data storage systems
  + Exception handling
* **Project proposal submission deadline: March 31st ,2023.**
* **Tentative project, presentation & report submission deadline: 15th/16th week of the semester.**
* Final submission includes the Project report (PDF), Presentation (ppt), Code (Zipped folder).