MAKERERE UNIVERSITY
COLLEGE OF COMPUTING & INFORMATION SCIENCES
SCHOOL OF COMPUTING & IT

BSE 3209 Advanced Object-Oriented Programming
Take Home Assignment Sem II 2020-2021

Issued on: 17th/December/2021
Deadline: 30th/December/2021

Instructions:
- **This assignment must be done in groups; each group must have 4 students.**
- **Presentations will be held for this assignment and the date will be communicated.**

In Katikamu primary school, a teacher registers students manually using a book and a pen. A teacher records student's first name, last name, registration number, gender, age, subject and the class he/she belongs to. Teachers also record students' marks using pen and paper. The registration and results books are sometimes misplaced and quite difficult to locate in a staff room. Students complain that their marks are lost since teachers misplace and lose books where they record students' marks. As a software engineer, you are required to develop a java windows application that will address issues encountered by teachers and students as specified in the above scenario; Some of the functionality expected in your application is as follows;

Your application should;
   a) Allow the teacher to do the following;
- log into the application
- register students
- record students' marks
- see all registered students
- filter records e.g., search a student using their registration number, filter students using a subject name.

   b) Allow students to
- Login into the application
- see their marks
- see their class timetable

Key assessment points
- Including relevant functionality (thinking out of the box) to address issues related to the context above.
- Design of your database (fields and their relationships with other schemas/tables).
- Use of principles of good software like reusability, modularity, separation of concerns where applicable.
- Application of java concepts like interfaces etc.