CS 262L- Database Systems
DataBase Mid Project - A

Session: 2020 – 2024

Submitted by:

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FYP MANAGEMENT SYSTEM

1.0.2 Layout Of Report

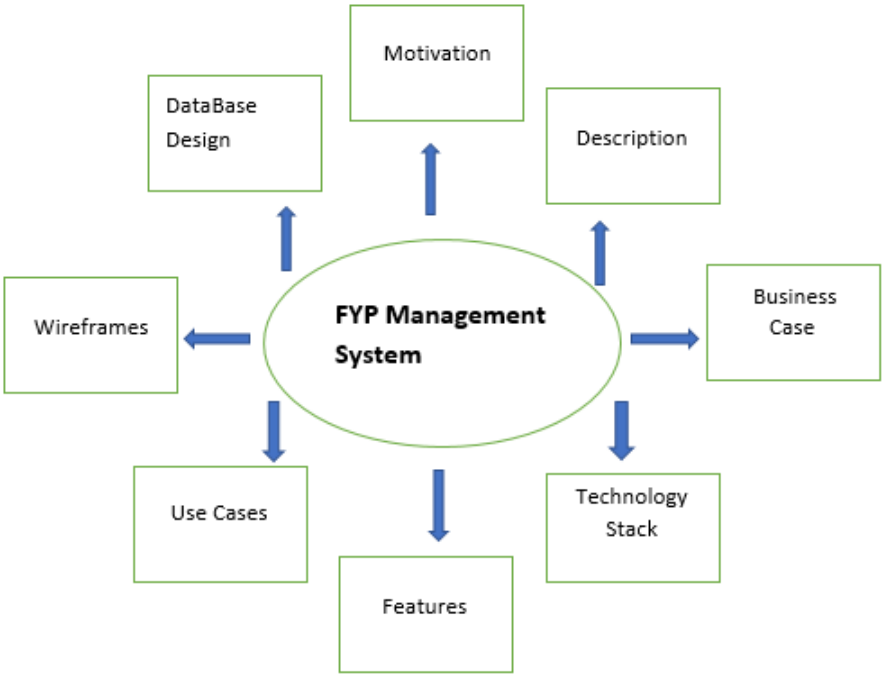


Figure 1.1: Report Layout

FIGURE 1.2: DATABASE

1.0.3 Motivation

The motivation of this project is to deliver source of knowledge in a convenient way. .A system by which Person have an easy access for Enroll in FYP Project. To give full facility to the Students and Advisors so they can rely easily.

1.0.4 Description

Department of Computer Science UET Lahore holds committee for management of final year project. Each year,list of project titles is opened for the students by the committee after the compilation of ideas from the faculty members. Students are privileged to form the group and select any of the ideas from the list after approval from the faculty advisor.The group of students that carried out this FYP successfully presented their ideas and solutions to the representatives of SB Group, Amazed with the end product.

Once the project is selected by a group of students, an advisory board is assigned to the project which consists of main advisor, co-advisor, and industry advisor.

Throughout the year, multiple evaluations are taken against the project. Currently, this process is managed through spread sheets that will be operated by the member of project committee to manage data at one place.

And any other feature that can be helpful for the management of final year projects after discussion with the committee. Final year project committee also requires multiple reports in pdf form.

The final year project is the culmination of the degree, it gives students a chance to demonstrate all they have learned.. Although students are advised, the purpose is on the student to define the problem, to identify solutions, and to present the

results. For assignments, students submit projects of their progress and reports, and give presentations of their project.

As part of their need, students are needed to communicate and work on a final project with a industry member. It is the way of determining the students performance for project or research connected to the knowledge they have gathered. It allows students to choose ways, techniques and make resolution for the project to handled the project easily.

1.0.5 Project Features

• Manage Students
• Manage Advisors
• Manage Projects
• Formation of Student Group and its management
• Assignment of project to a group of students
• Assignment of multiple advisors to the project
• Manage Evaluations
• Mark the evaluations against a group
• List of projects along with advisory board and list of students
• Marks sheet of projects that shows the marks in each evaluation against each student and project and any other reports that you can help the committee to streamline the process.

1.0.6 Objective Of the Project

• For Admin to manage the details of Person who enroll as a student, Advisor, also manage Groups, GroupStudents, Projects, Evaluations.

1.0.7 Algebraic Query Language used in Project:

• Projection
• Selection
• Cartesian Product
• Joins(Natural,Outer,left,Right,Full,Theta)
• Aggregation Operators

1.1 Business Case

Our target is Students For their FYP Projects

1.1.1 Business Need

The problem is that it is very difficult for a person to enroll in Re FYP Project and to select the Group, Project and Advisor. This project is a benefit for Educational System and FYP Management System. It provides user-friendly environment."

1.1.2 Impact on society

"This project will have a positive impact in society as it is an ocean of knowledge. If this project is implemented so it will be a easily enter the students to enroll for Project.

1.2 Technology Stack

Table 1.1

Language	CSharp
Platform	Desktop Application
IDEs	Visual Studio AND Microsoft SQL SERVER

1.3 WireFrames

1.3.1 MainScreen

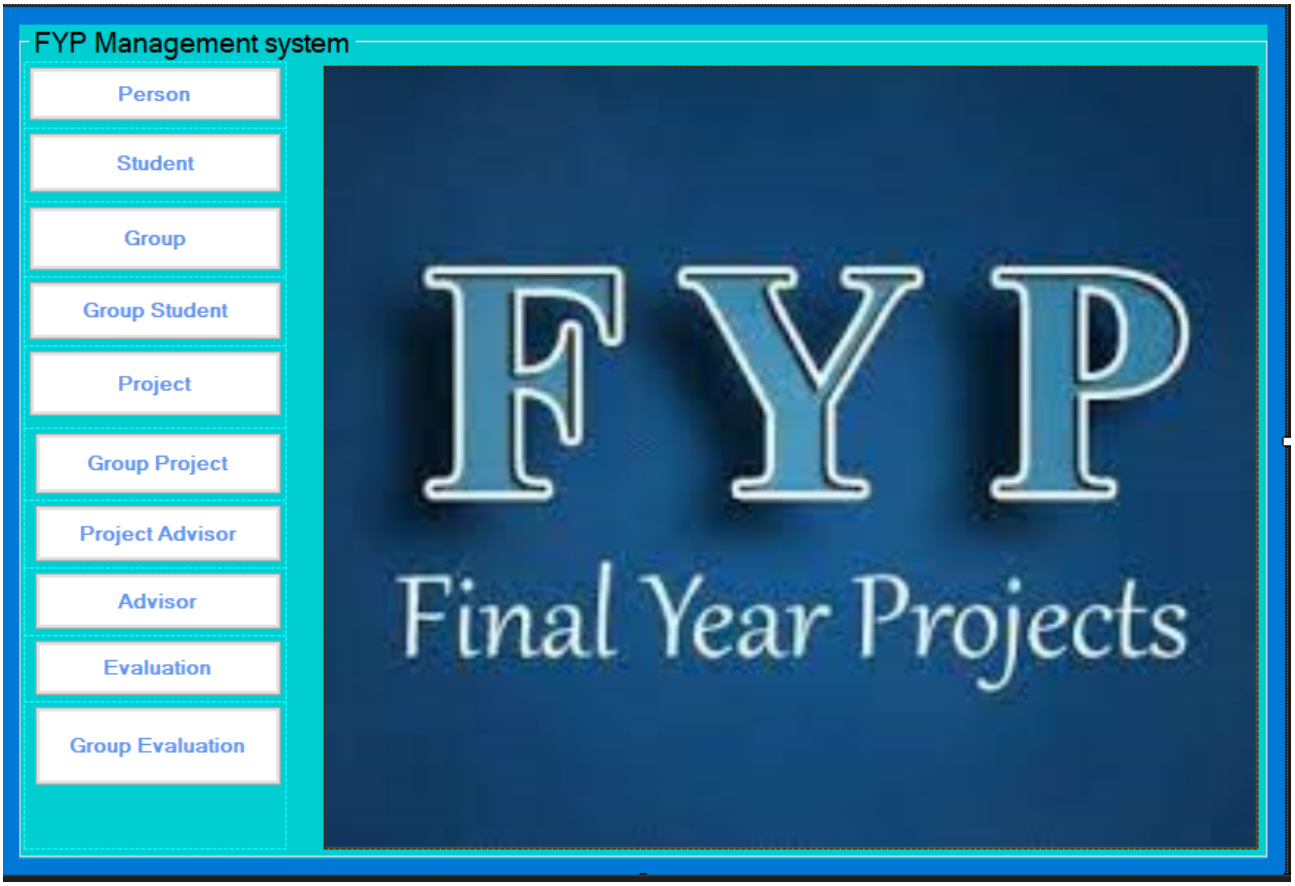


FIGURE 1.3: Main screen

1.4 DataBase Design

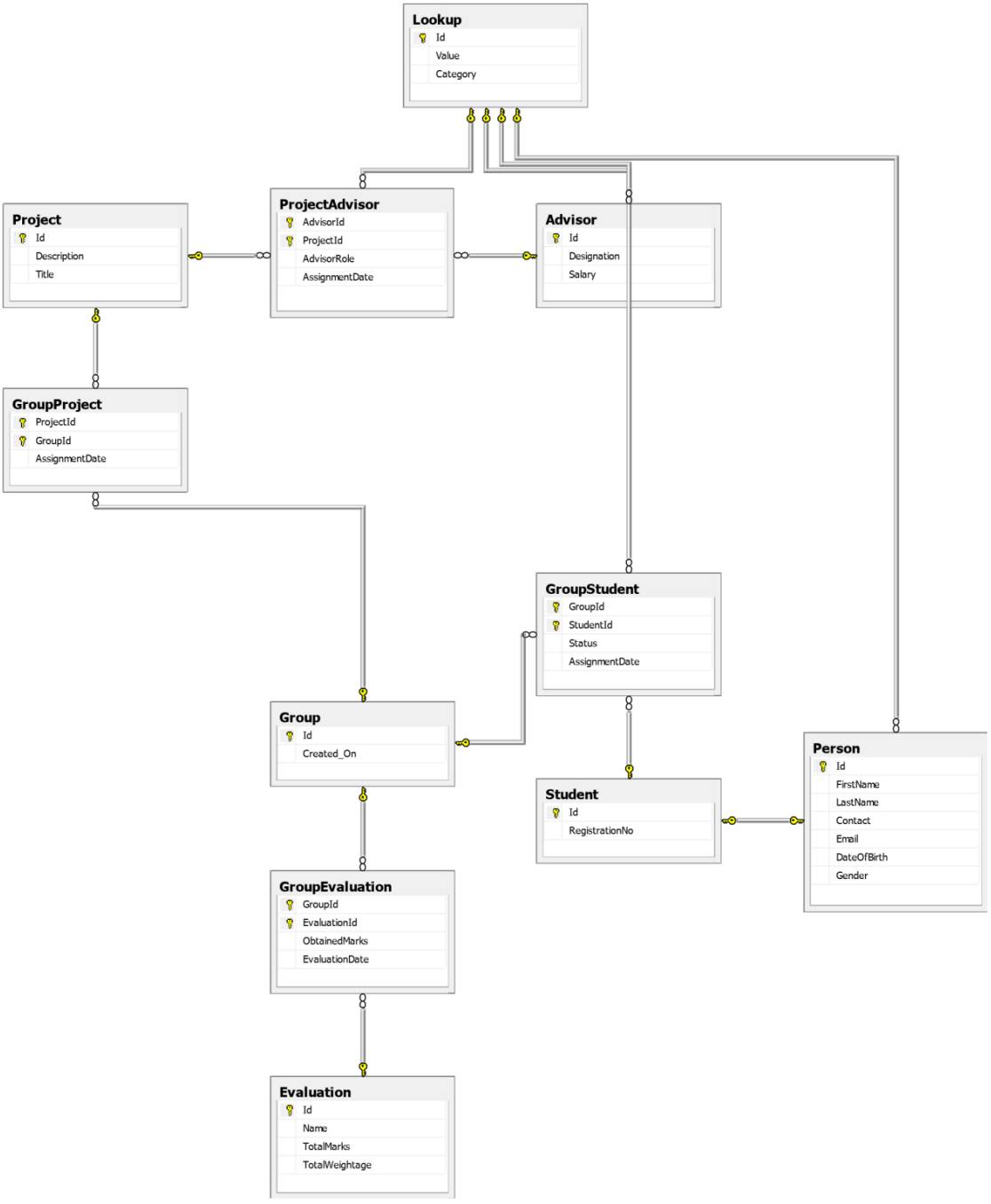


FIGURE 1.4: Design

1.5 Methodologies

Firstly Connected the SQL DATABASE, and then connect SQL with the visual Studio.The schema is get from Project A.

1.5.1 Person

The FYP Management system used the person to register itself for Project.In Person, ID is initialized as a Primary Key.First Name,Last Name, Contact,Email,Date of Birth and gender is the attributes of Person.In Gender(a combo box is used which determine the male or female) get the data from lookup Table by using select query in combo box.While Id is a by-default value.Apply CRUD Operations(INSERT, UPDATE, SEARCH, DELETE, SHOW, CLEAR by using queries.

1.5.2 Student

Student Who Enroll or register for FYP Projects.In student, Id is a Foreign Key taken from Person Table.Using the load operator to call the id from Person.Registration No is always a unique given by the committee member.Apply CRUD Operations(INSERT, SEARCH, DELETE, SHOW, CLEAR) by using queries. Update Operator doesn't apply because Registration No never be update.

1.5.3 Group

Group are formed for students to work on final year Project.In Group, ID is initialized as a Primary Key.Created-On is the attribute of Group.While Id is a by-default value.Apply CRUD Operations(INSERT, UPDATE, SEARCH, DELETE, SHOW, CLEAR) by using queries.

1.5.4 Group Student

Group Students are formed to work on final year Project.In group Student,Group Id ,Student Id, Status and Assignment Date are the attributes.Group Id is a Foreign key which is taken from the Group Table .Student Id is a Foreign key which is taken from the Student Table.Using the load operator to call the id from Group and student Id's.In Status(a combo box is used which determine the active or inactive) get the data from lookup Table by using select query in combo box.Apply CRUD Operations(INSERT, UPDATE, SEARCH, DELETE, SHOW, CLEAR) by using queries.

1.5.5 Project

Project is given to the FYP students.In Project, ID is initialized as a Primary Key.Description and Title of Project are the attributes.While Id is a by-default value.Apply CRUD Operations(INSERT, UPDATE, SEARCH, DELETE, SHOW, CLEAR bu using queries.)

1.5.6 Group Project

Group Project provides the information for students to work on their projects.Project Id is the Foreign Key taken from the Project, Group Id is the Foreign Key taken from Group.Assignment date is selected to submit the assignment on time.Using the load operator to call the id from Group and Project Id's.Apply CRUD Operations(INSERT, UPDATE, SEARCH, DELETE, SHOW, CLEAR) by using queries.

1.5.7 Advisor

Advisor is provided as a Guider for Students for their project.In Advisor, ID is given by the admin.While Designation and Salary are the attributes.In Designation(a combo box is used which determine the Lecturer,Assistant Professor, Associate Professor,Professor,Industry Professional) get the data from lookup Table by using select query in combo box.Apply CRUD Operations(INSERT, UPDATE, SEARCH, DELETE, SHOW, CLEAR) by using queries.

1.5.8 Project Advisor

Project Advisor is provided as a Guider for Students for their project.In Project Advisor,Project Id is the Foreign Key taken from the Project, Advisor Id is the Foreign Key taken from advisor, also Advisor role and assignment date are the attributes.In Advisor Role(a combo box is used which determine the Main advisor,Co-Advisor,Industrial Advisor) get the data from lookup Table by using select query in combo box.Using the load operator to call the id from Advisor and Project Id's.Apply CRUD Operations(INSERT, UPDATE, SEARCH, DELETE, SHOW, CLEAR) by using queries.

1.5.9 Evaluation

Evaluation is to graded the Students for their Projects with their evaluated date of submission of project deadlines.In Evaluation, ID is initialized as a Primary Key also Name, Total Marks, Total weightage are the attributes.While Id is a by-default value.Apply CRUD Operations(INSERT, UPDATE, SEARCH, DELETE, SHOW, CLEAR bu using queries.)

1.5.10 Group Evaluation

Group Evaluation is to graded the GroupStudents for their Projects with their evaluated date of submission of project deadlines.In Group Evaluation,Group Id is the Foreign Key taken from the Group, Evaluated Id is the Foreign Key taken from Evaluation, also obtained marks and evaluated date are the attributes.sing the load operator to call the id from evaluation and Group Id's.Apply CRUD Operations(INSERT, UPDATE, SEARCH, DELETE, SHOW, CLEAR bu using queries.)

1.5.11 Use Case 1:

1.5.11.1 Person

Table 1.2

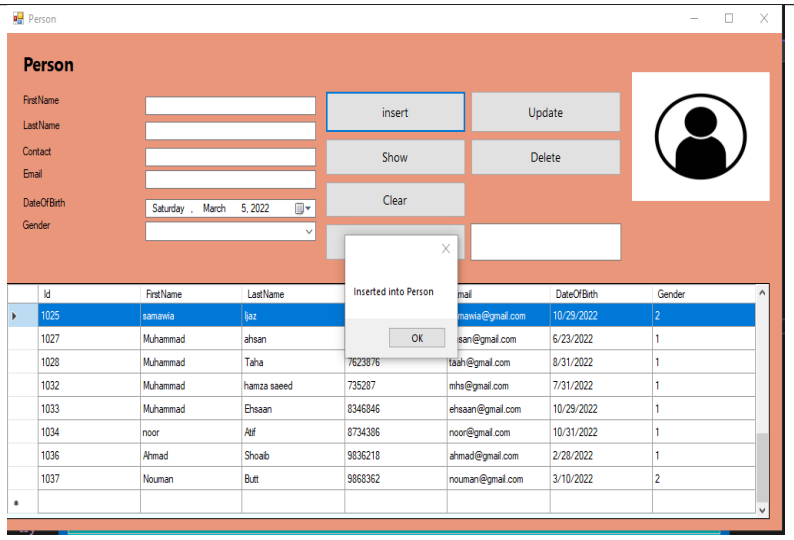
Use Case 1 (a)	INSERT person
Algebraic Query Language	In Insertion or addition, we used query to stored the data.
GUI	

Table 1.3

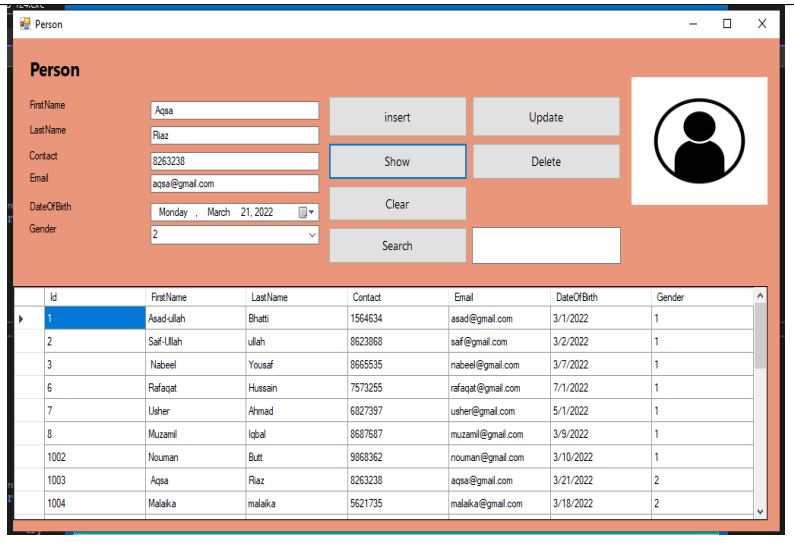
Use Case 1 (b)	UPDATE PERSON
Algebraic Query Language	In Updation, we used query to update the data.
GUI	

Table 1.4

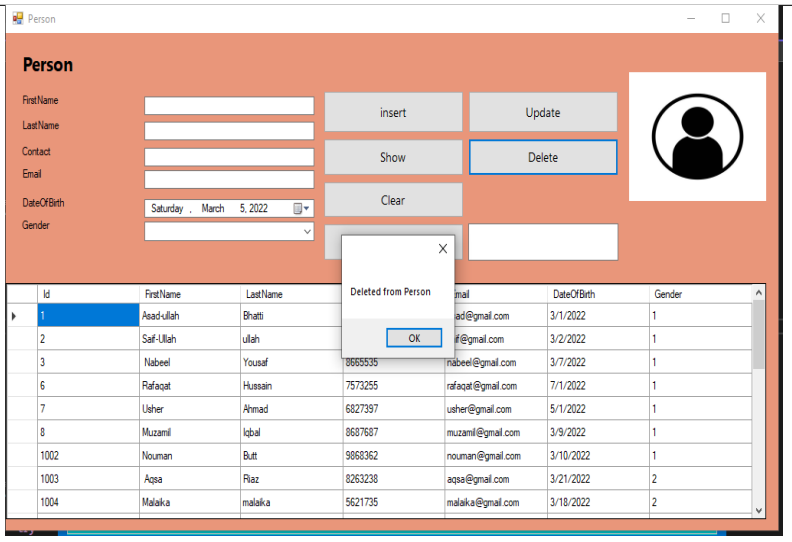
Use Case 1 (c)	DELETE PERSON
Algebraic Query Language	In Deletion, we used query to delete the data.
GUI	

Table 1.5

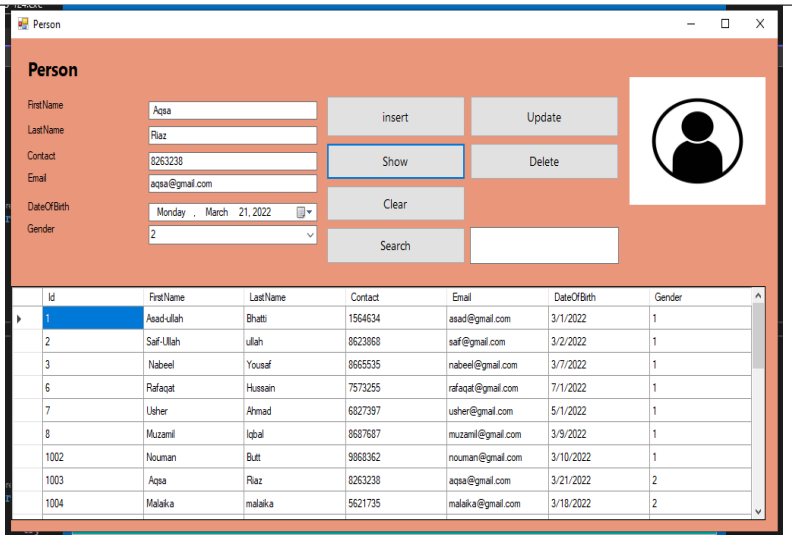
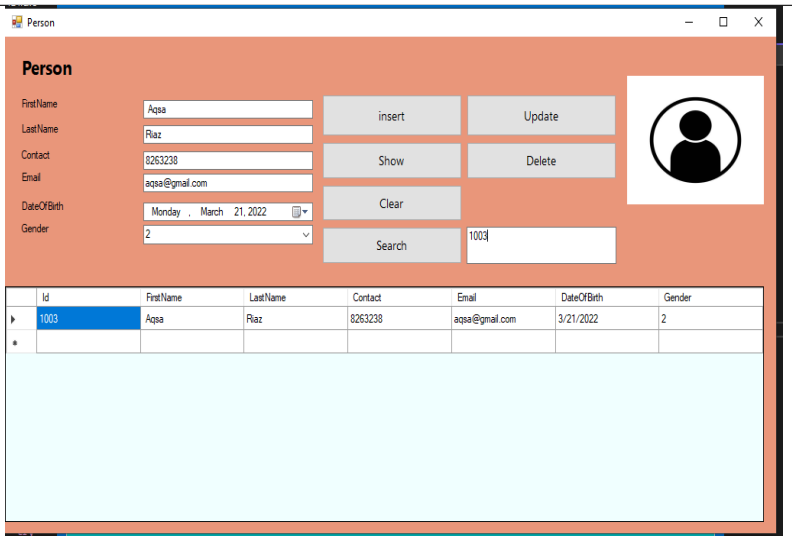
Use Case 1 (d)	SHOW PERSON
Algebraic Query Language	In show, we used query to show the data.
GUI	

Table 1.6

Use Case 1 (e)	SEARCH PERSON
Algebraic Query Language	In SEARCH, we used query to search the data.
GUI	

1.5.12 Use Case 2:

1.5.12.1 Student

Table 1.7

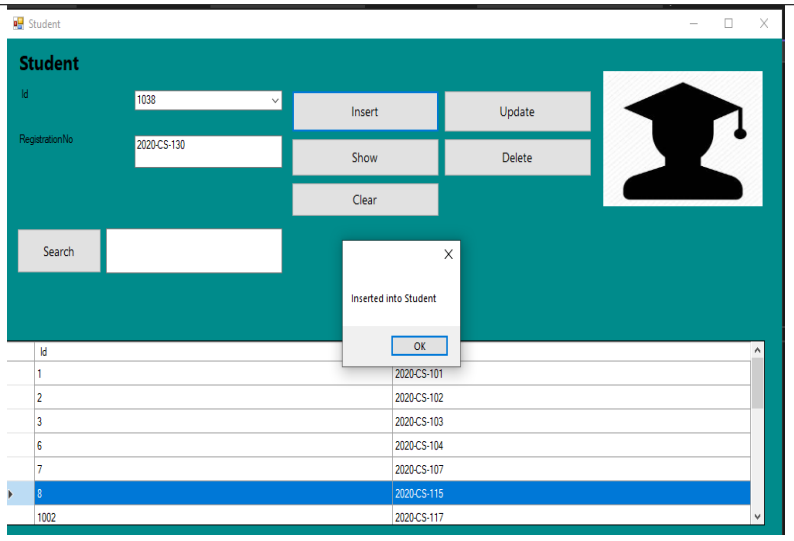
Use Case 2 (a)	INSERT Student
Algebraic Query Language	In Insertion or addition, we used query to stored the data.
GUI	

Table 1.8

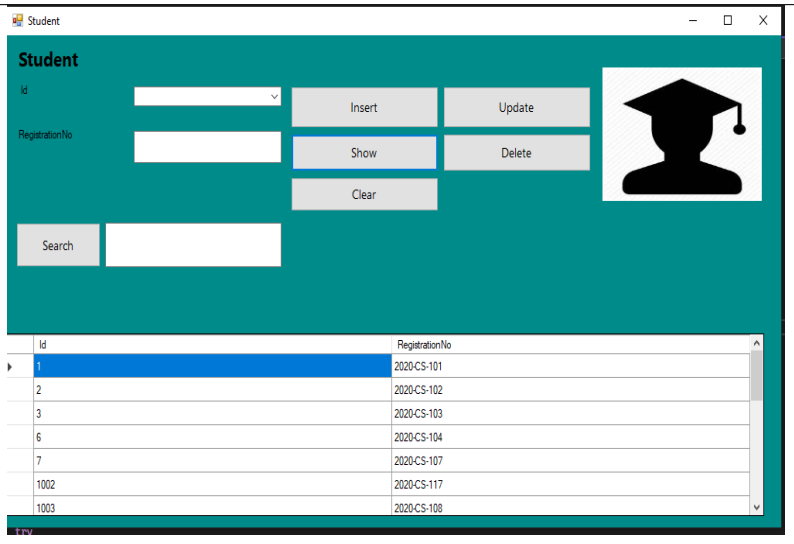
Use Case 2 (b)	UPDATE Student
Algebraic Query Language	In Updation, we used query to update the data.
GUI	

Table 1.9

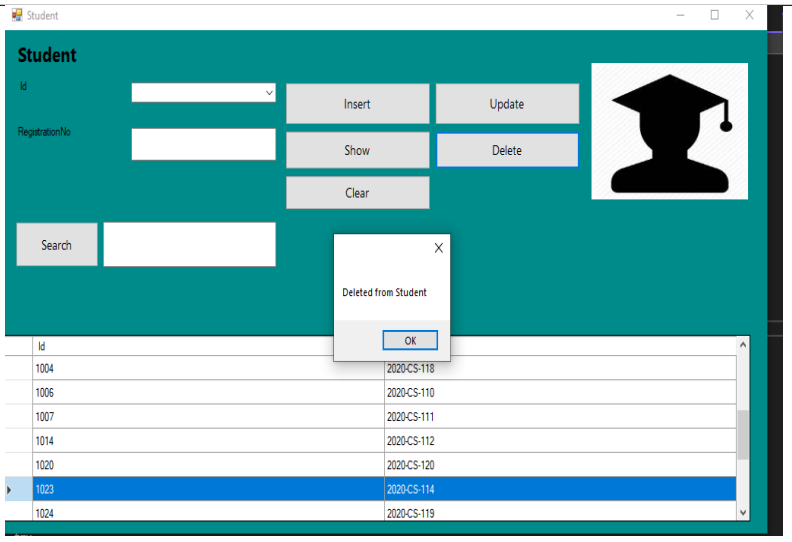
Use Case 2 (c)	DELETE Student
Algebraic Query Language	In Deletion, we used query to delete the data.
GUI	

Table 1.10

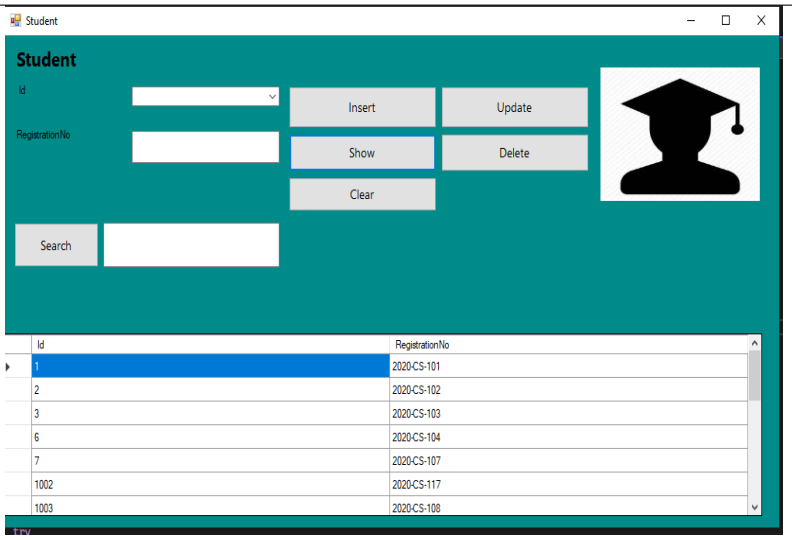
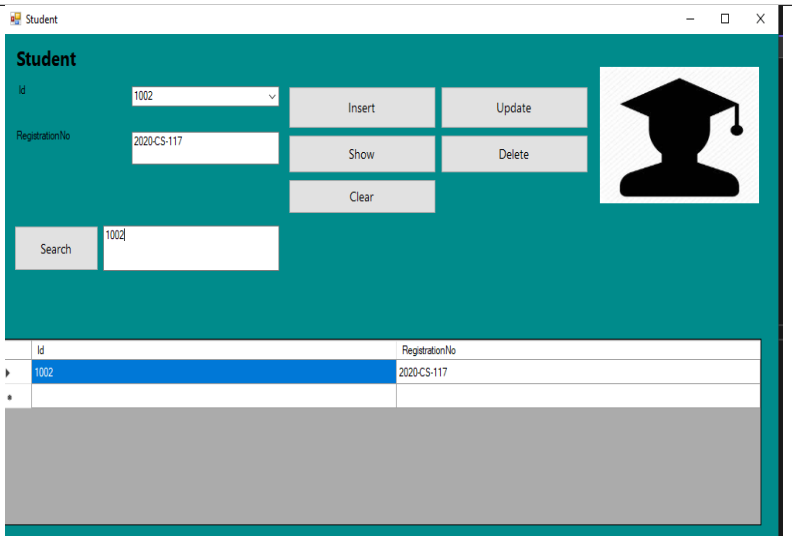
Use Case 2 (d)	SHOW Student
Algebraic Query Language	In show, we used query to show the data.
GUI	

Table 1.11

Use Case 2 (e)	SEARCH Student
Algebraic Query Language	In SEARCH, we used query to search the data.
GUI	

1.5.13 Use Case 3:

1.5.13.1 GROUP

Table 1.12

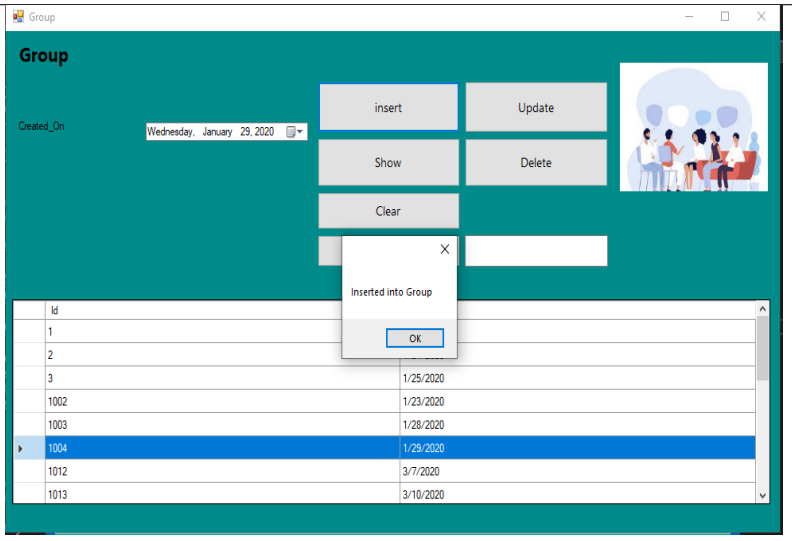
Use Case 3 (a)	INSERT GROUP
Algebraic Query Language	In Insertion or addition, we used query to stored the data.
GUI	

Table 1.13

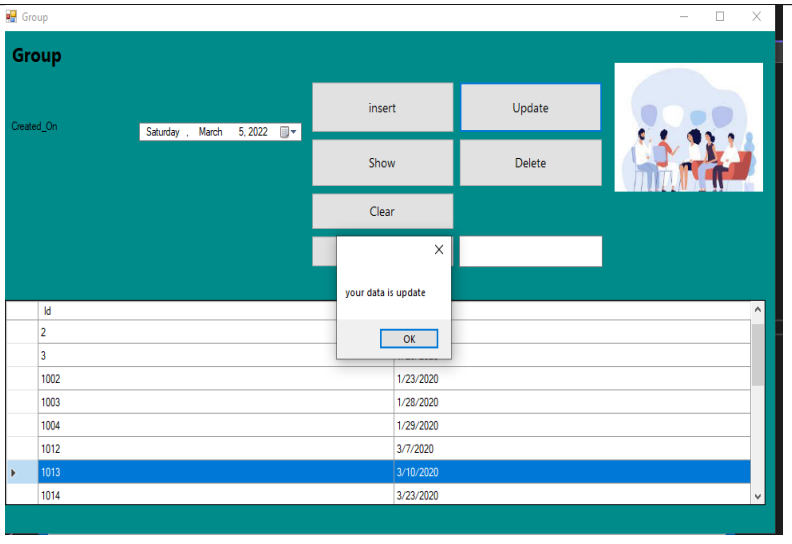
Use Case 3 (b)	UPDATE GROUP
Algebraic Query Language	In Updation, we used query to update the data.
GUI	

Table 1.14

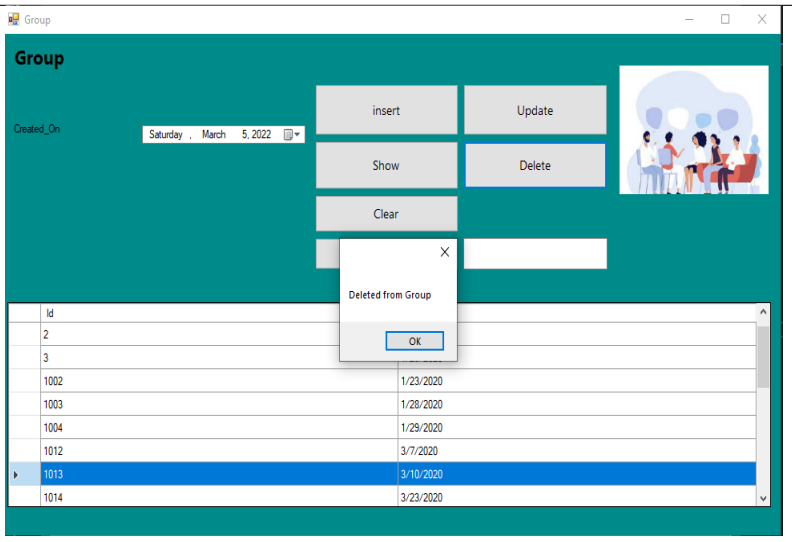
Use Case 3 (c)	DELETE GROUP
Algebraic Query Language	In Deletion, we used query to delete the data.
GUI	

Table 1.15

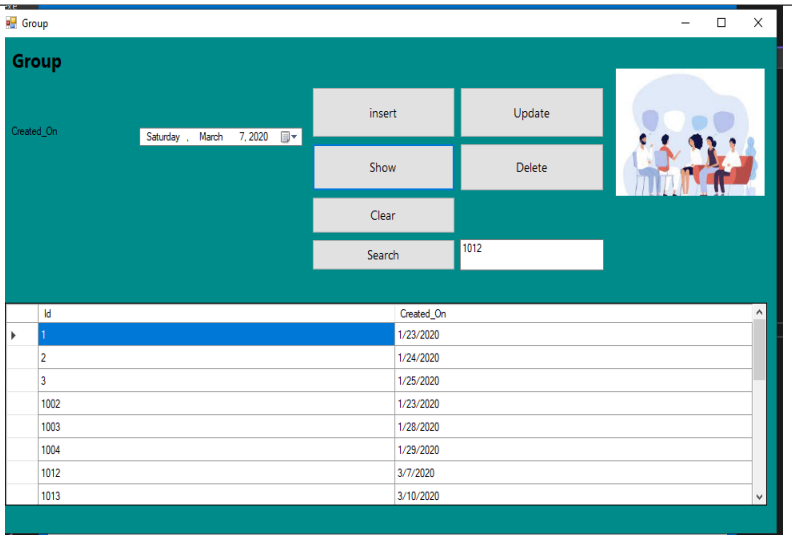
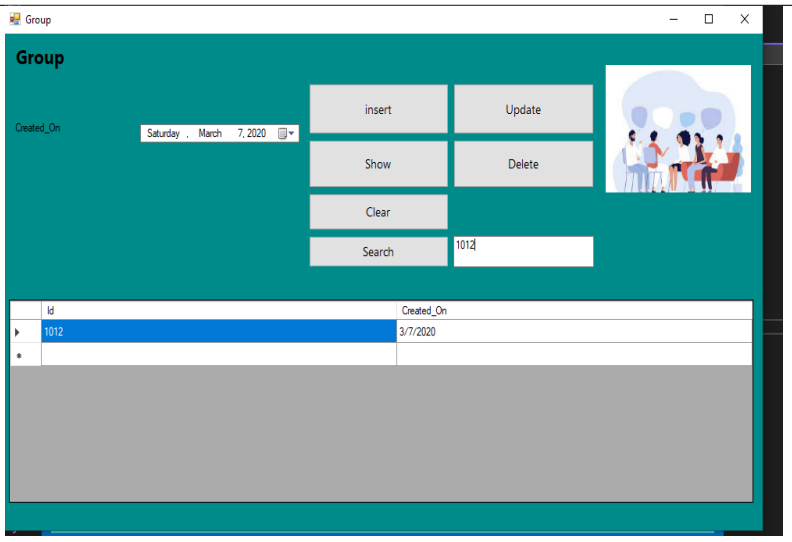
Use Case 3 (d)	SHOW GROUP
Algebraic Query Language	In show, we used query to show the data.
GUI	

Table 1.16

Use Case 3 (e)	SEARCH GROUP
Algebraic Query Language	In SEARCH, we used query to search the data.
GUI	

1.5.14 Use Case 4:

1.5.14.1 GROUPSTUDENT

Table 1.17

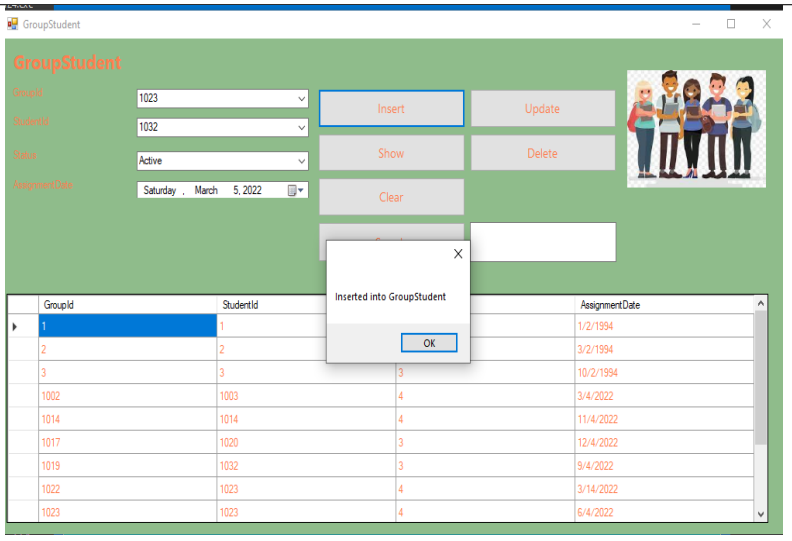
Use Case 4 (a)	INSERT GROUPSTUDENT
Algebraic Query Language	In Insertion or addition, we used query to stored the data.
GUI	

Table 1.18

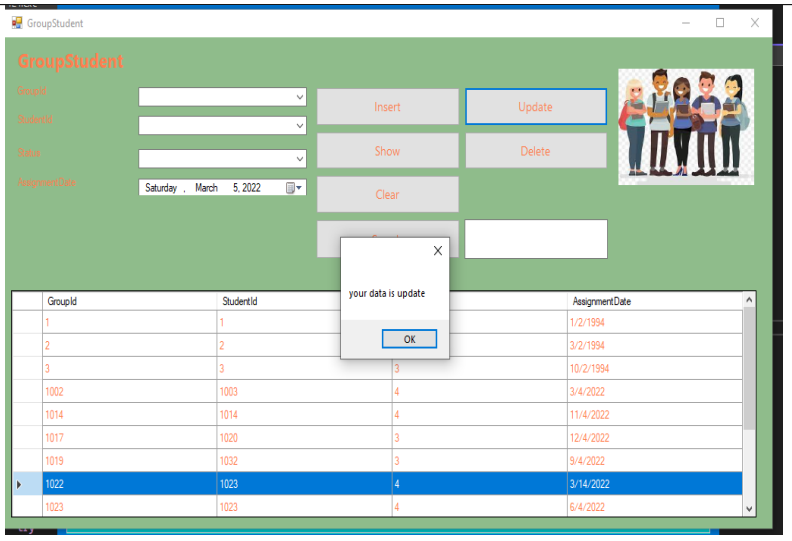
Use Case 4 (b)	UPDATE GROUPSTUDENT
Algebraic Query Language	In Updation, we used query to update the data.
GUI	

Table 1.19

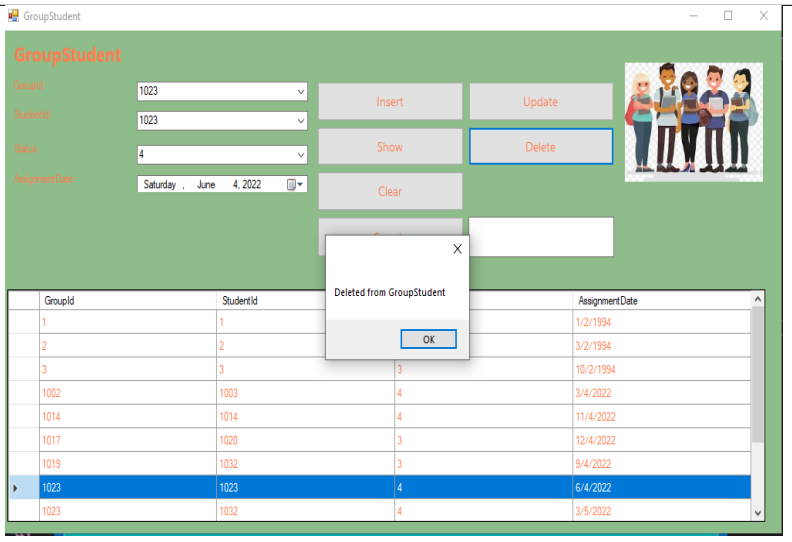
Use Case 4 (c)	DELETE GROUPSTUDENT
Algebraic Query Language	In Deletion, we used query to delete the data.
GUI	

Table 1.20

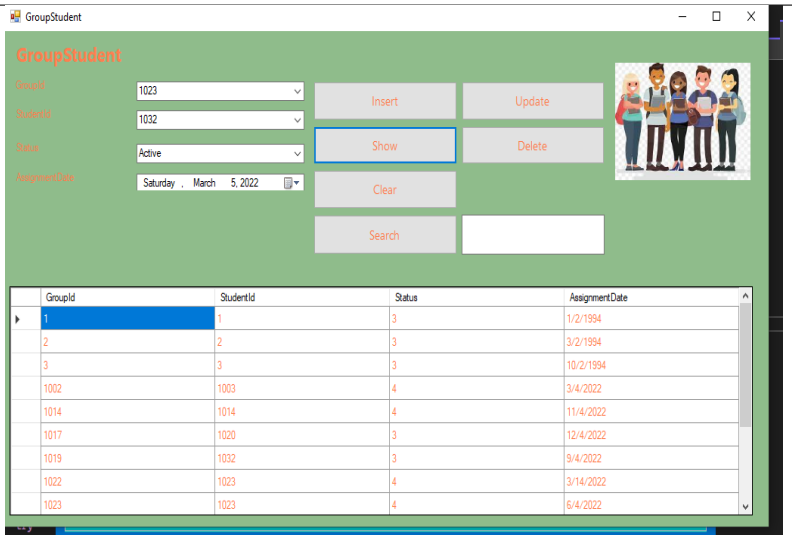
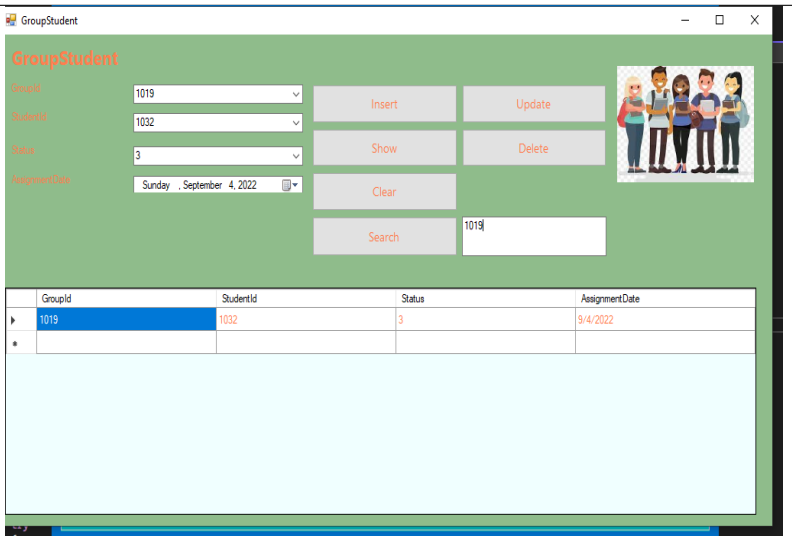
Use Case 4 (d)	SHOW GROUPSTUDENT
Algebraic Query Language	In show, we used query to show the data.
GUI	

Table 1.21

Use Case 4 (e)	SEARCH GROUPSTUDENT
Algebraic Query Language	In SEARCH, we used query to search the data.
GUI	

1.5.15 Use Case 5:

1.5.15.1 PROJECT

Table 1.22

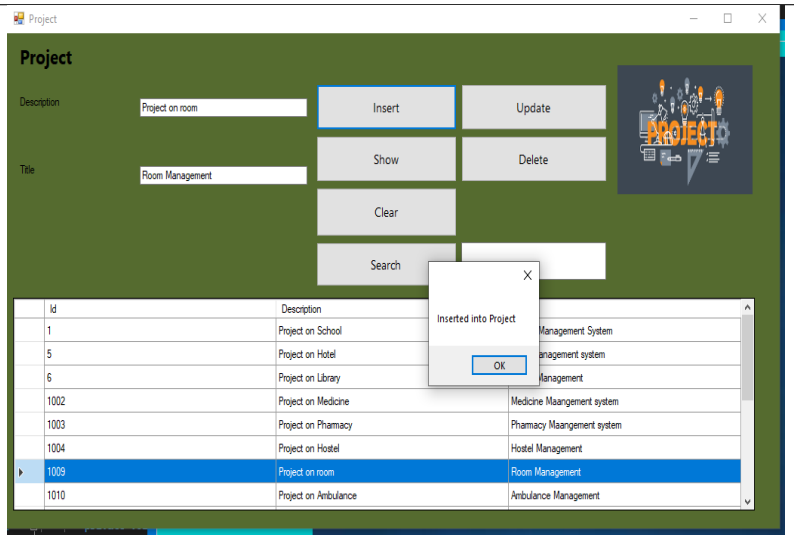
Use Case 5 (a)	INSERT PROJECT
Algebraic Query Language	In Insertion or addition, we used query to stored the data.
GUI	

Table 1.23

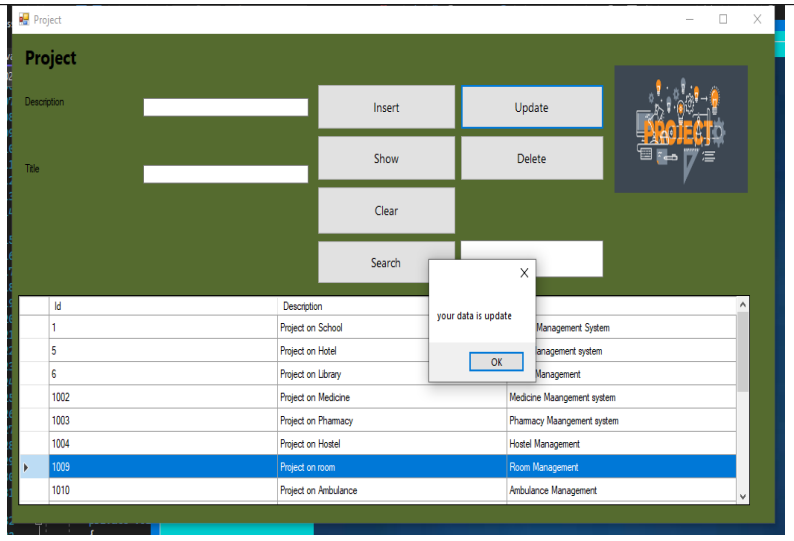
Use Case 5 (b)	UPDATE PROJECT
Algebraic Query Language	In Updation, we used query to update the data.
GUI	

Table 1.24

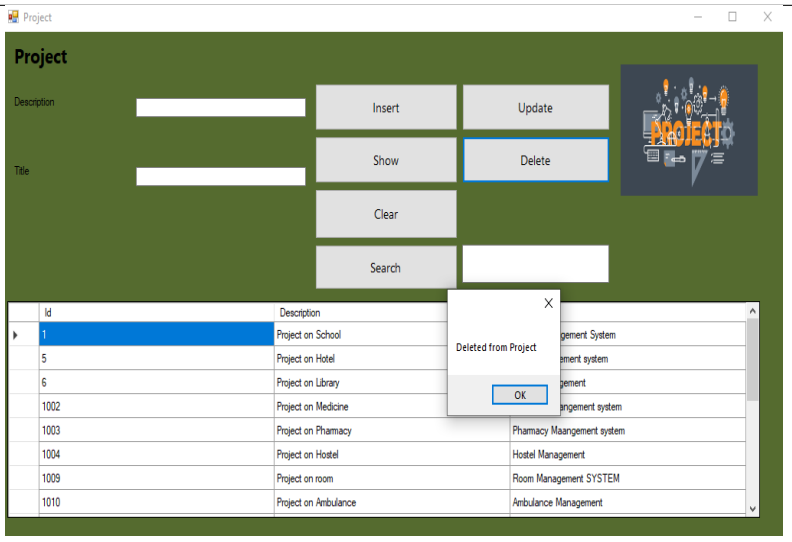
Use Case 5 (c)	DELETE PROJECT
Algebraic Query Language	In Deletion, we used query to delete the data.
GUI	

Table 1.25

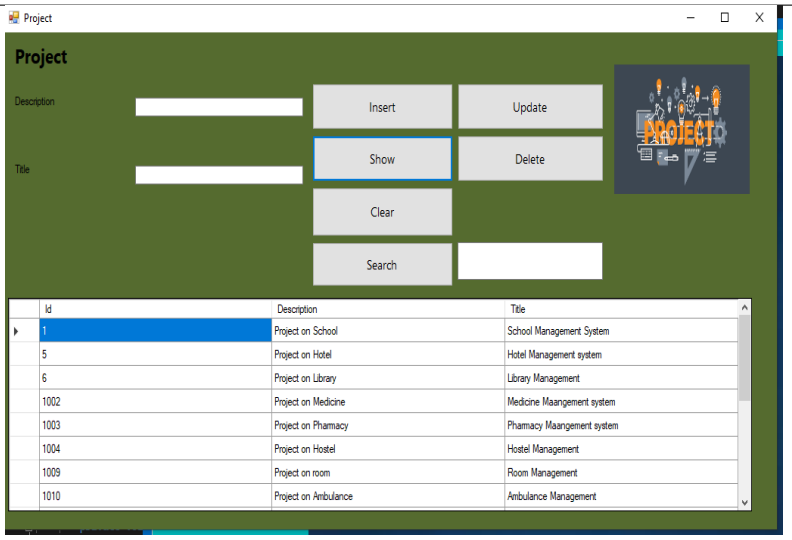
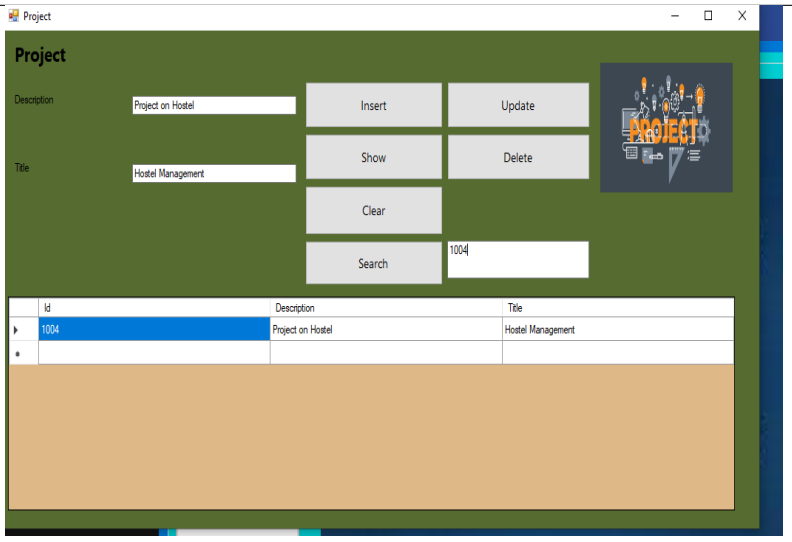
Use Case 5 (d)	SHOW PROJECT
Algebraic Query Language	In show, we used query to show the data.
GUI	

Table 1.26

Use Case 5 (e)	SEARCH PROJECT
Algebraic Query Language	In SEARCH, we used query to search the data.
GUI	

1.5.16 Use Case 6:

1.5.16.1 GROUPPROJECT

Table 1.27

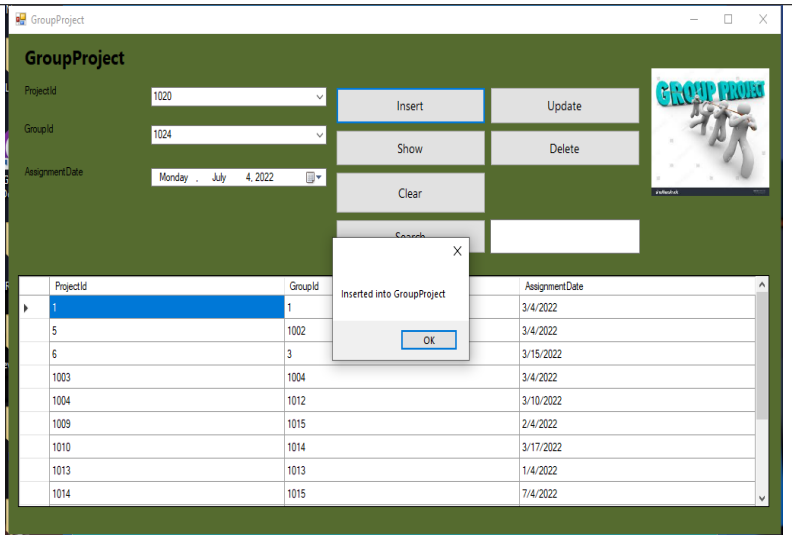
Use Case 6 (a)	INSERT GROUPPROJECT
Algebraic Query Language	In Insertion or addition, we used query to stored the data.
GUI	

Table 1.28

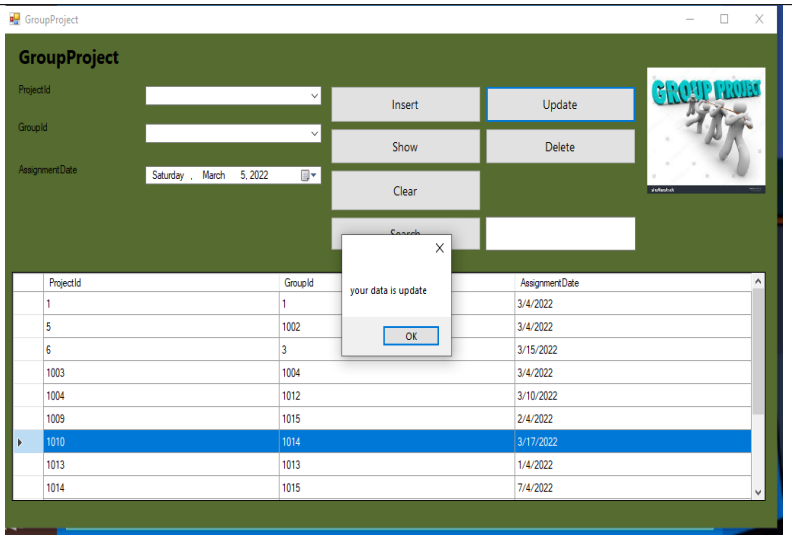
Use Case 6 (b)	UPDATE GROUPPROJECT
Algebraic Query Language	In Updation, we used query to update the data.
GUI	

Table 1.29

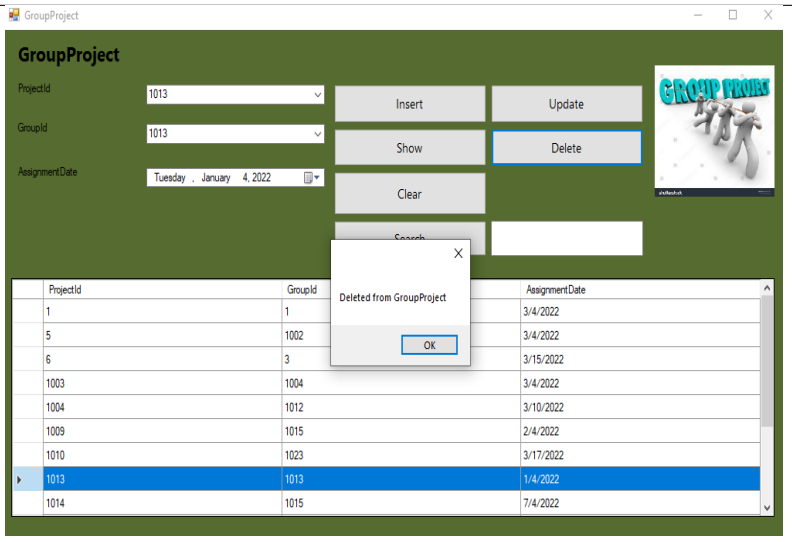
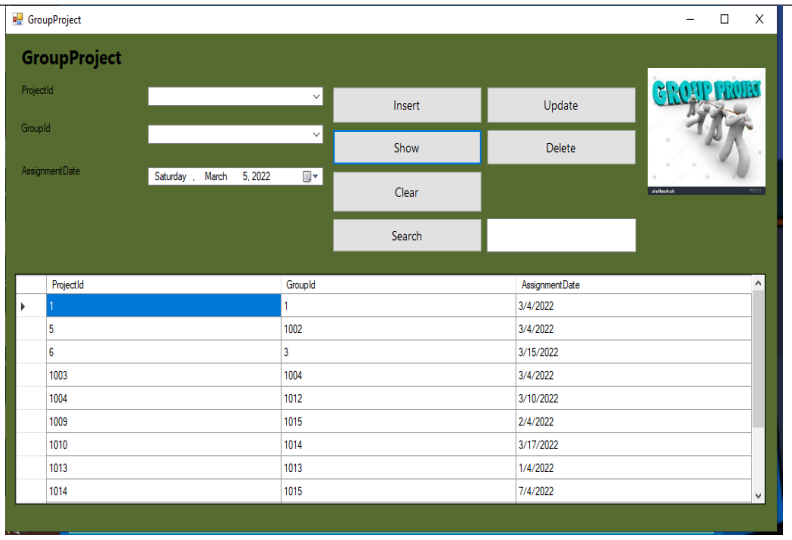
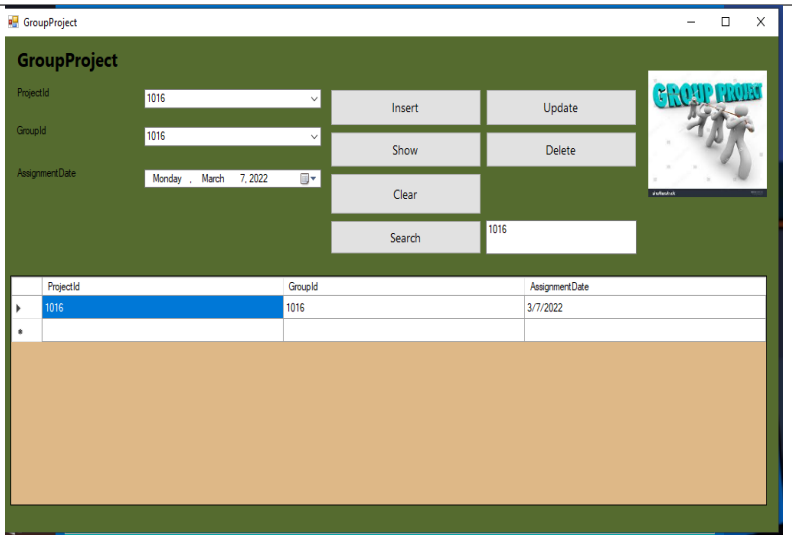
Use Case 6 (c)	DELETE GROUPPROJECT
Algebraic Query Language	In Deletion, we used query to delete the data.
GUI	

Table 1.30

Use Case 6 (d)	SHOW GROUPPROJECT
Algebraic Query Language	In show, we used query to show the data.
GUI	

[PROJECT Search]

Use Case 6 (e)	SEARCH GROUPPROJECT
Algebraic Query Language	In SEARCH, we used query to search the data.
GUI	

1.5.17 Use Case 7:

1.5.17.1 ADVISOR

Table 1.31

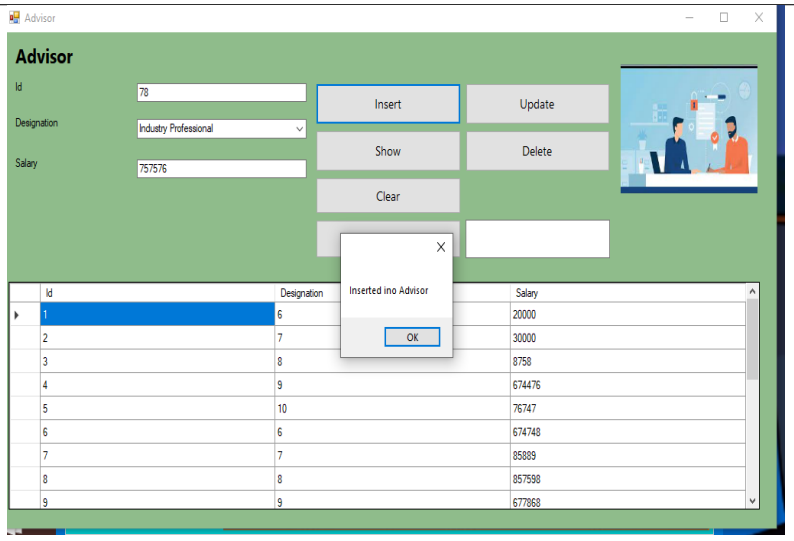
Use Case 7 (a)	INSERT ADVISOR
Algebraic Query Language	In Insertion or addition, we used query to stored the data.
GUI	

Table 1.32

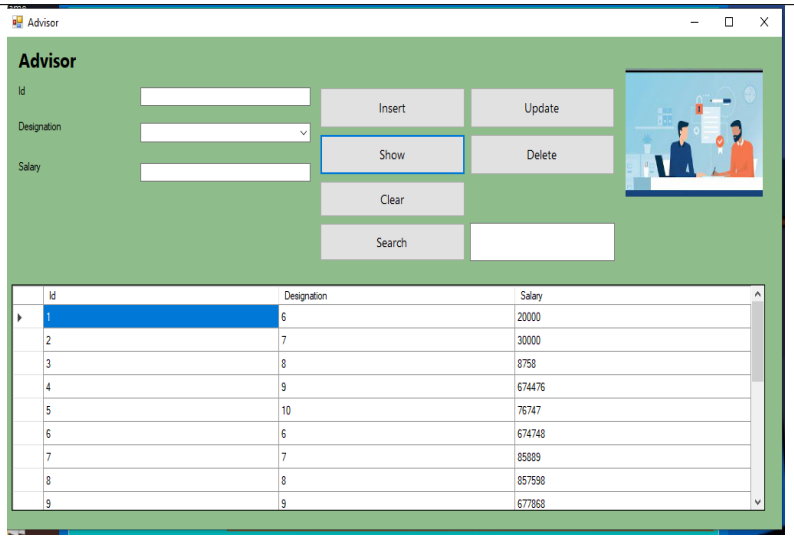
Use Case 7 (b)	UPDATE ADVISOR
Algebraic Query Language	In Updation, we used query to update the data.
GUI	

Table 1.33

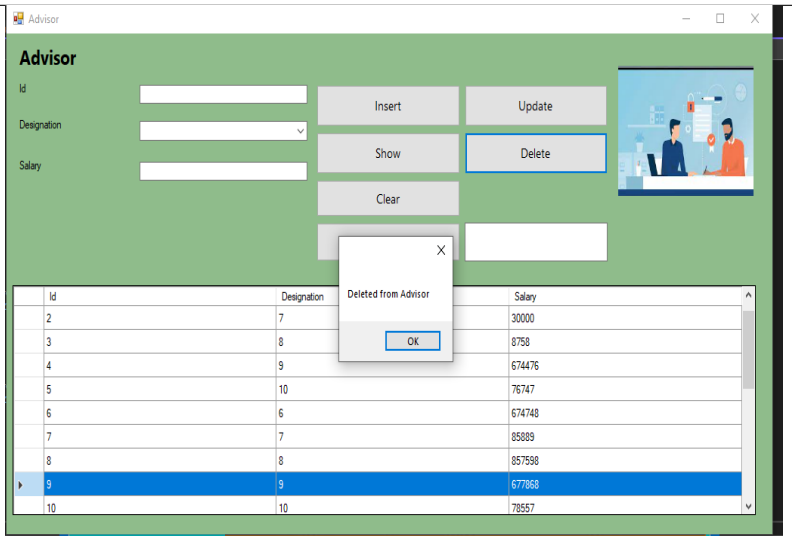
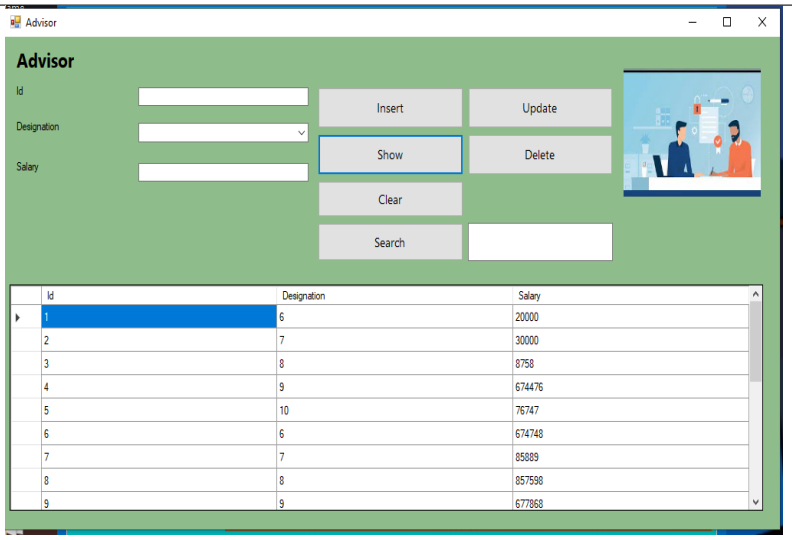
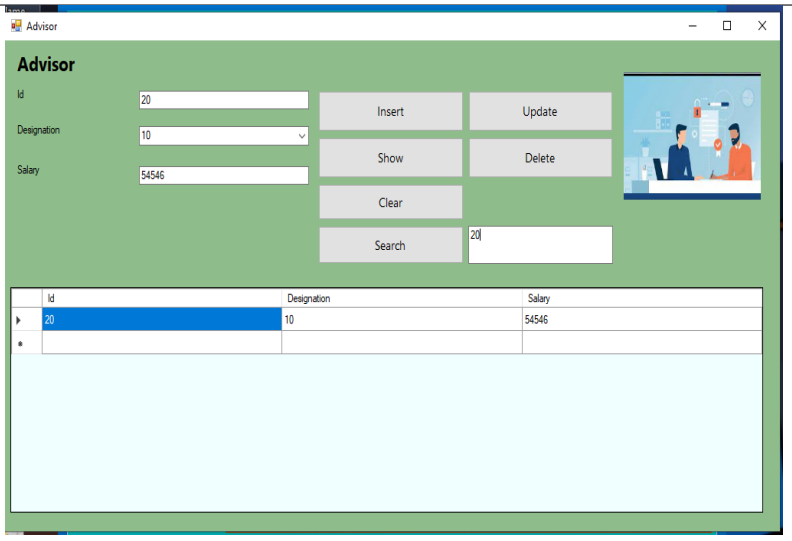
Use Case 7 (c)	DELETE ADVISOR
Algebraic Query Language	In Deletion, we used query to delete the data.
GUI	

Table 1.34

Use Case 7 (d)	SHOW ADVISOR
Algebraic Query Language	In show, we used query to show the data.
GUI	

[ADVISOR Search]

Use Case 7 (e)	SEARCH ADVISOR
Algebraic Query Language	In SEARCH, we used query to search the data.
GUI	

1.5.18 Use Case 8:

1.5.18.1 PROJECTADVISOR

Table 1.35

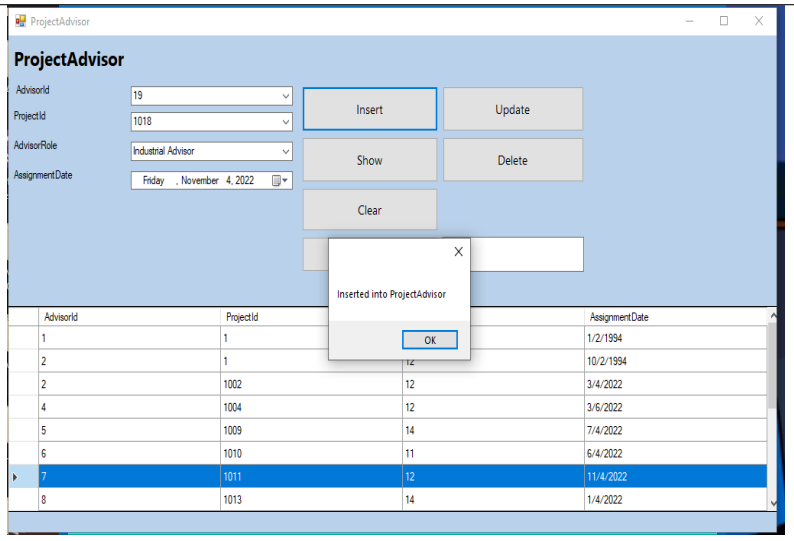
Use Case 8 (a)	INSERT PROJECTADVISOR
Algebraic Query Language	In Insertion or addition, we used query to stored the data.
GUI	

Table 1.36

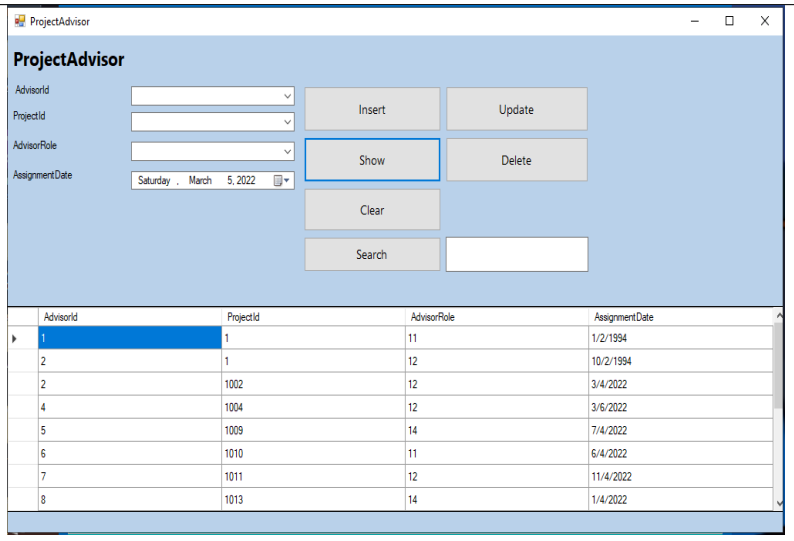
Use Case 8 (b)	UPDATE PROJECTADVISOR
Algebraic Query Language	In Updation, we used query to update the data.
GUI	

Table 1.37

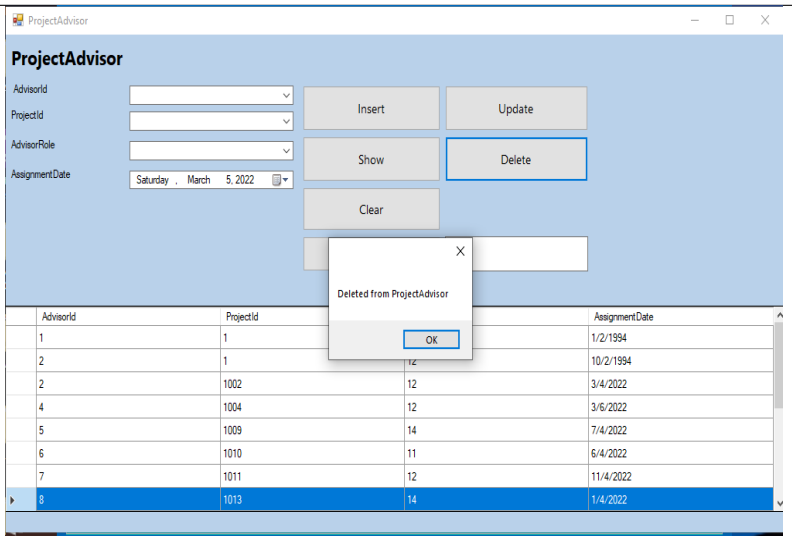
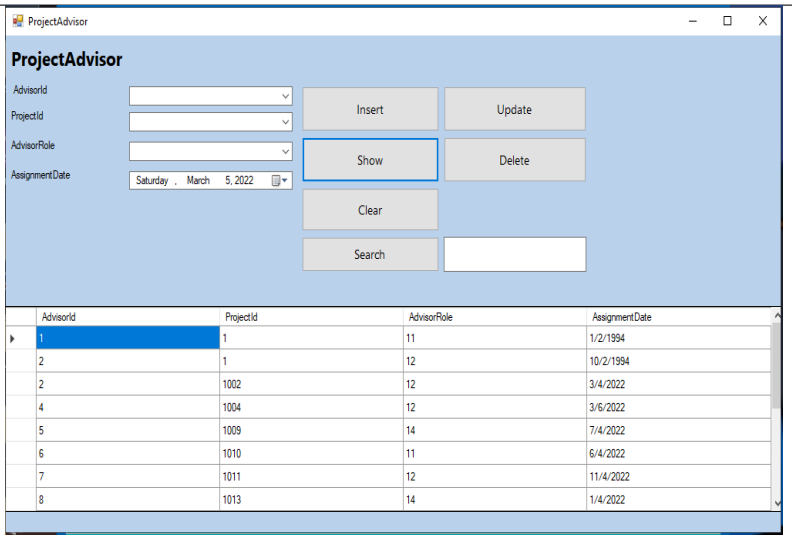
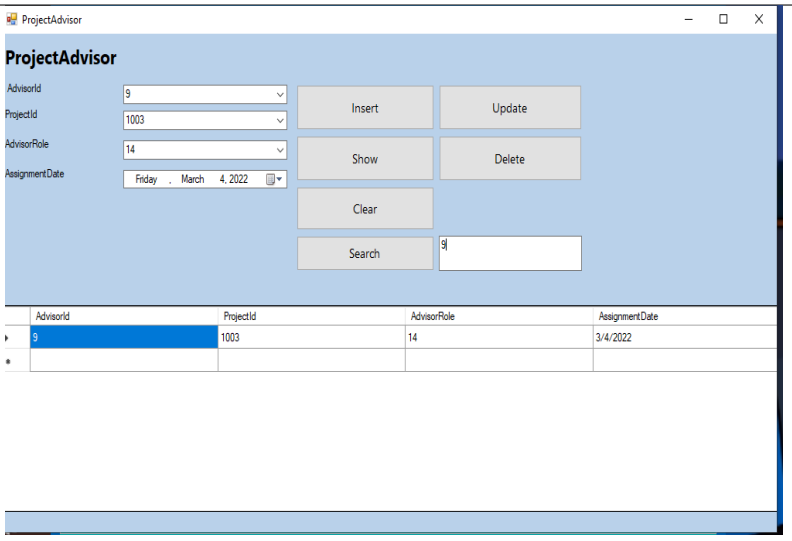
Use Case 8 (c)	DELETE PROJECTADVISOR
Algebraic Query Language	In Deletion, we used query to delete the data.
GUI	

Table 1.38

Use Case 8 (d)	SHOW PROJECTADVISOR
Algebraic Query Language	In show, we used query to show the data.
GUI	

[PROJECTADVISOR Search]

Use Case 8 (e)	SEARCH PROJECTADVISOR
Algebraic Query Language	In SEARCH, we used query to search the data.
GUI	

1.5.19 Use Case 9:

1.5.19.1 EVALUATION

Table 1.39

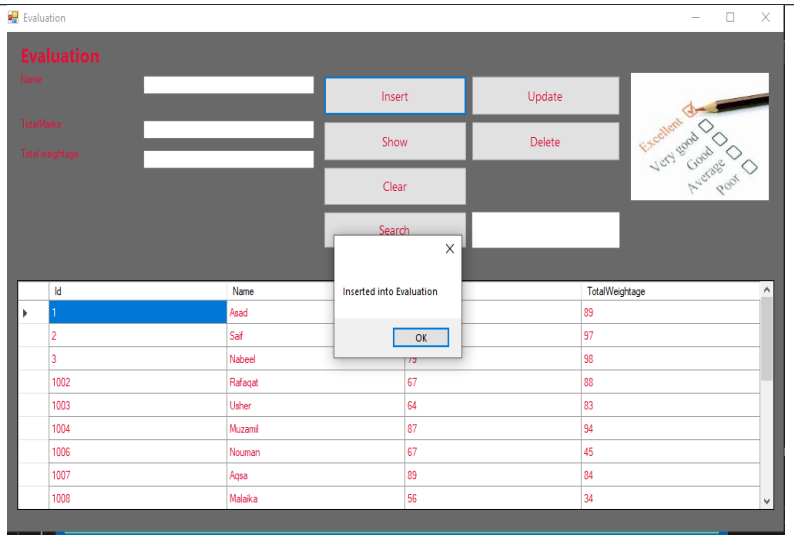
Use Case 9 (a)	INSERT EVALUATION
Algebraic Query Language	In Insertion or addition, we used query to stored the data.
GUI	

Table 1.40

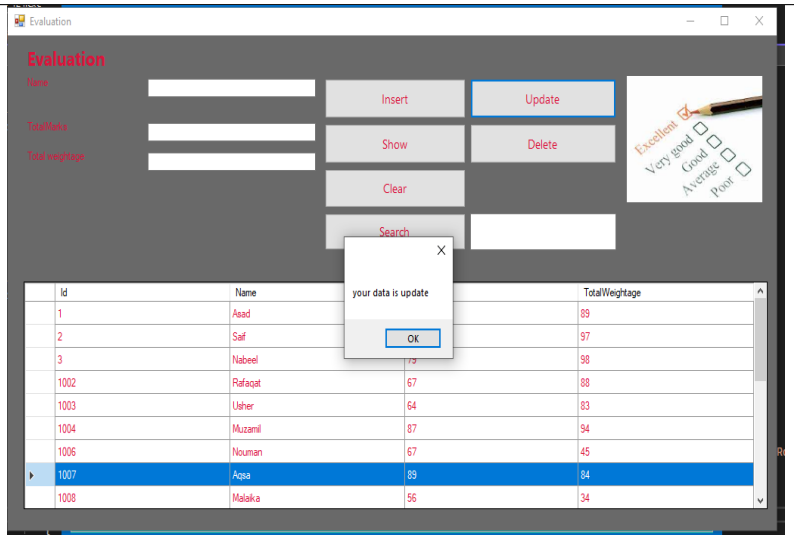
Use Case 9 (b)	UPDATE EVALUATION
Algebraic Query Language	In Updation, we used query to update the data.
GUI	

Table 1.41

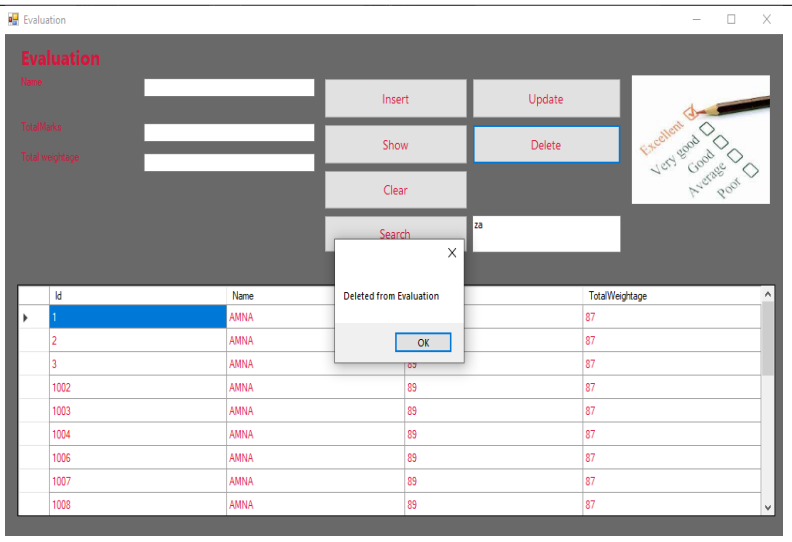
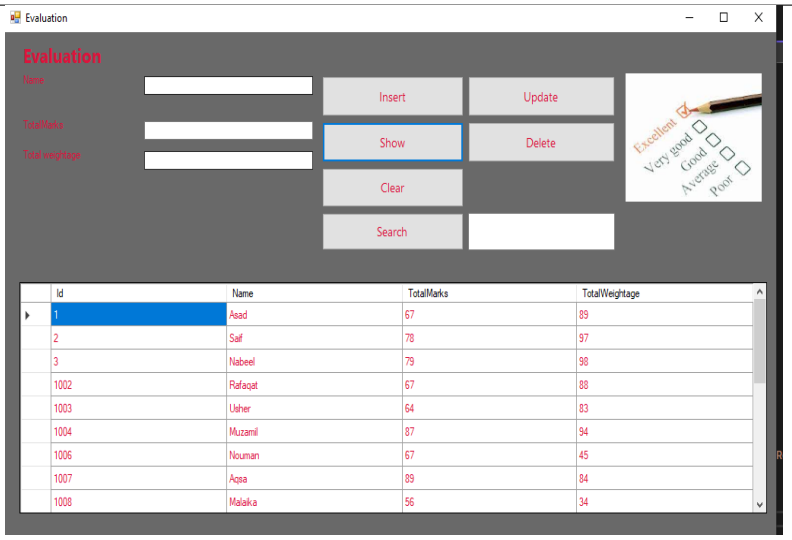
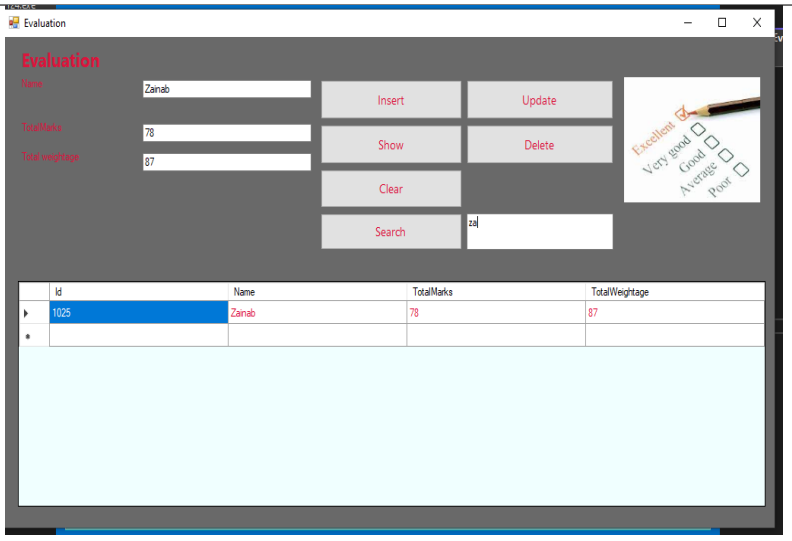
Use Case 9 (c)	DELETE EVALUATION
Algebraic Query Language	In Deletion, we used query to delete the data.
GUI	

Table 1.42

Use Case 9 (d)	SHOW EVALUATION
Algebraic Query Language	In show, we used query to show the data.
GUI	

[EVALUATION Search]

Use Case 9 (e)	SEARCH EVALUATION
Algebraic Query Language	In SEARCH, we used query to search the data.
GUI	

1.5.20 Use Case 10:

1.5.20.1 GROUPEVALUATION

Table 1.43

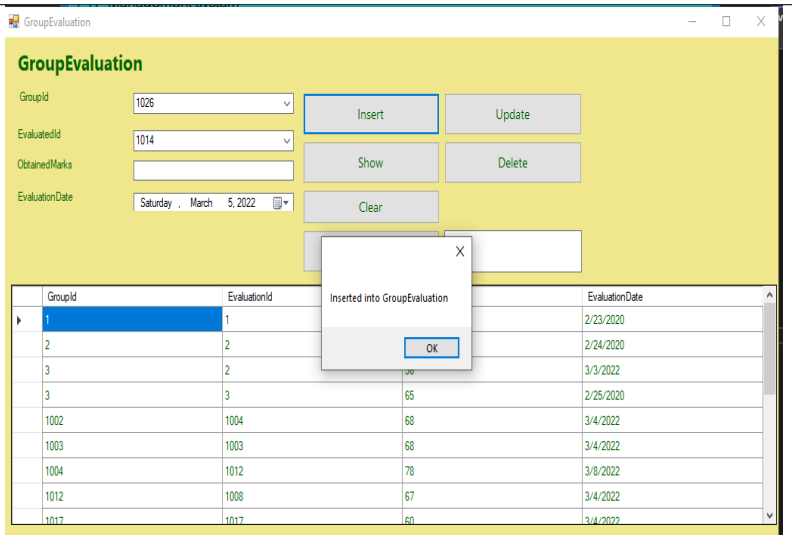
Use Case 10 (a)	INSERT GROUPEVALUATION
Algebraic Query Language	In Insertion or addition, we used query to stored the data.
GUI	

Table 1.44

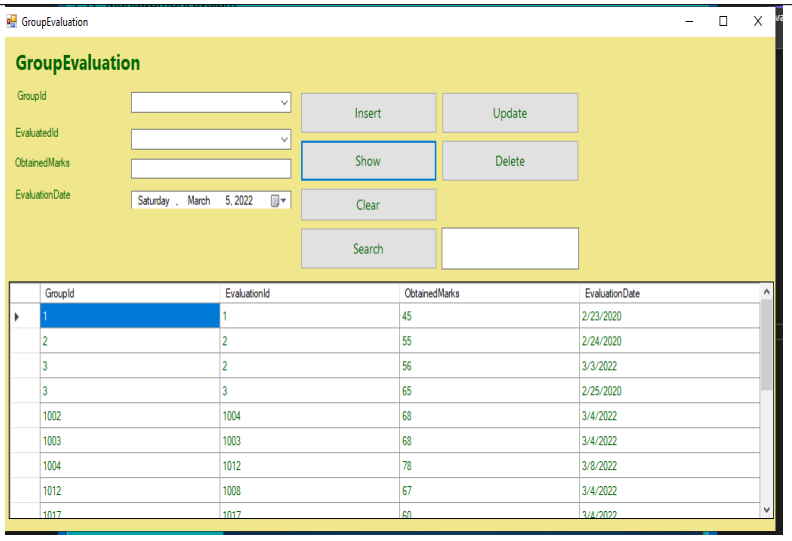
Use Case 10 (b)	UPDATE GROUPEVALUATION
Algebraic Query Language	In Updation, we used query to update the data.
GUI	

Table 1.45

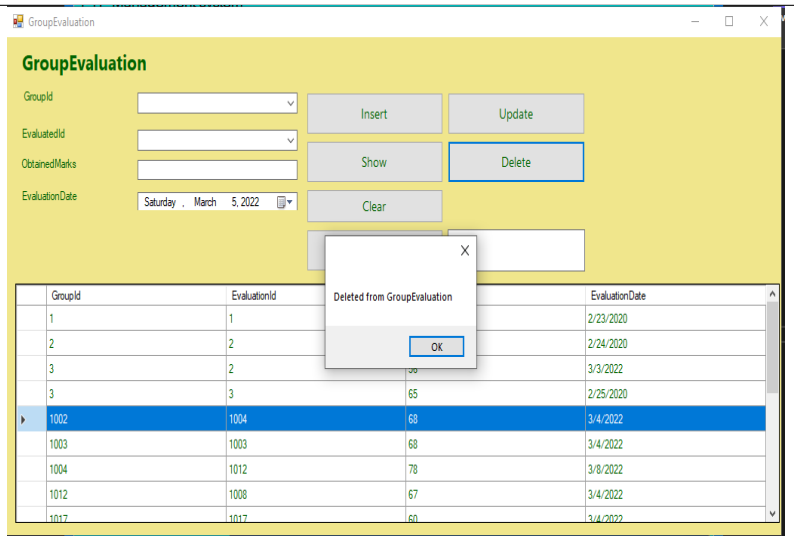
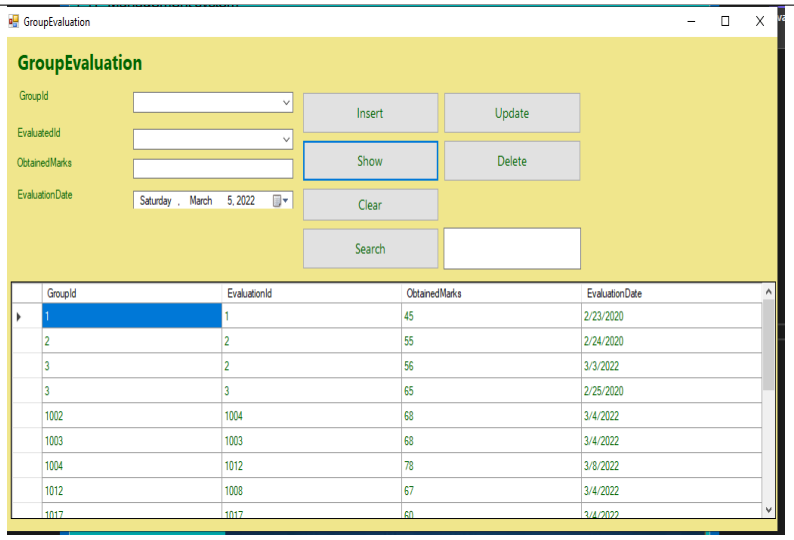
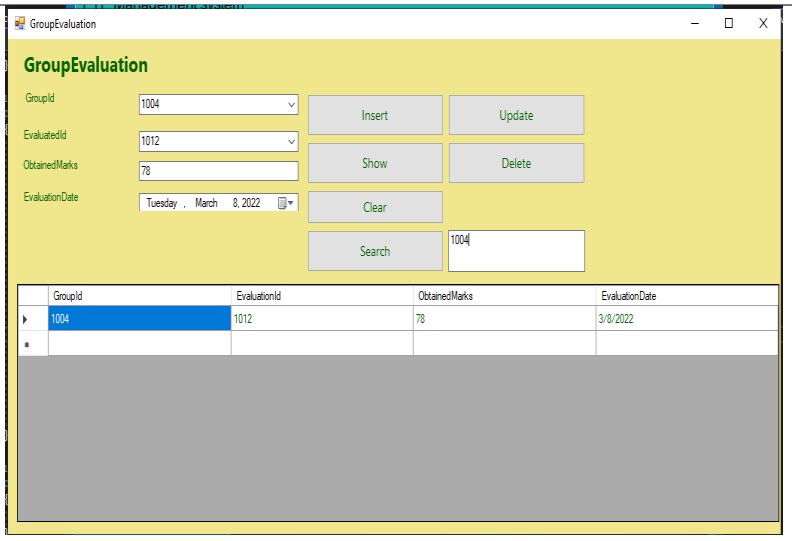
Use Case 10 (c)	DELETE GROUPEVALUATION
Algebraic Query Language	In Deletion, we used query to delete the data.
GUI	

Table 1.46

Use Case 10 (d)	SHOW GROUPEVALUATION
Algebraic Query Language	In show, we used query to show the data.
GUI	

[GROUPEVALUATION Search]

Use Case 10 (e)	SEARCH GROUPEVALUATION
Algebraic Query Language	In SEARCH, we used query to search the data.
GUI	

1.6 Future Work

"This project will try to create an online website which make possible the final year projects (FYP) for person. The FYP is a year-long process involving groups of students and their advisors to accomplish project. It is very necessary to allow different parties to communicate more efficiently.

Therefore, i will design and create a desktop application to better support by three users; FYP Committee Organization, project advisors and the project group members. The system is therefore helpful for CO to arrange project selection as well as helping the students to submit their group members information. During the year, the system would provide different purpose for the CO to collect student's assignments and marks via the submission. Project advisors will also be able check the progress of the projects.

Both the students and advisors will be rewarded from these reasons, Project group members are providing communication tools to allow for discussion on project issues among group members. Moreover, they can exchange about the project including code and files using our online repository."

1.7 Final Words

This project seems an experience in which I learnt a lot. Yes, I was put a lot of effort in it. I was manage every milestone according to supervisor's expectations sincerely. I was explore much and think more! And I believe that fruits of human labor do come. INSHAALLAH.