IMPLEMENTATION

6.1. Introduction:

A proper academic management system is very much needed for handling all the academic work of any institution. The objective of this report is to give the overview of the implementation of our system.

Sections described below are the Architectural Pattern in second section, Detailed Class Diagram in third section, Snapshots of our system in section 4, Limitation of Our System in section 5, Future Work in section 6 and the last section is about the Conclusion.

6.2 Architectural Pattern:

An architectural pattern is a general, reusable solution to a commonly occurring problem in software architecture within a given context. Architectural Pattern defines the overall shape and structure of software applications. We have used 3-tier architectural pattern for developing our software.

3-tier architectural pattern are three layers. They are presentation layer, application layer and database layer.

Presentation Layer: Presentation Layer occupies the top level and displays information related to services available on a website. In this layer, graphical user interface (GUI) or web interface is shown. It translates tasks and results to something the user understands. So, the user input is accepted and the output is generated in this layer.

Application Layer: Application Layer is also called middle tier, logic tier or business logic tier. It coordinates the application, processes commands, makes logical decisions and performs calculations. The application programs and the web pages are in this layer.

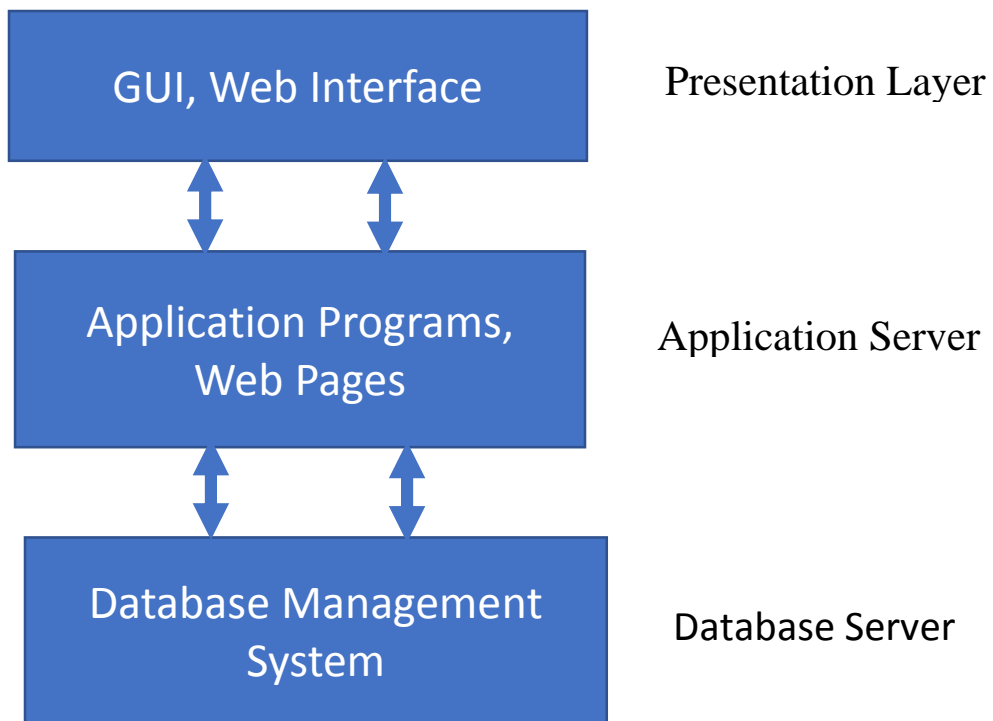***Data Access Layer:*** Information is retrieved and stored from a database management system.

Fig 1:- Block diagram of 3-tier architectural pattern

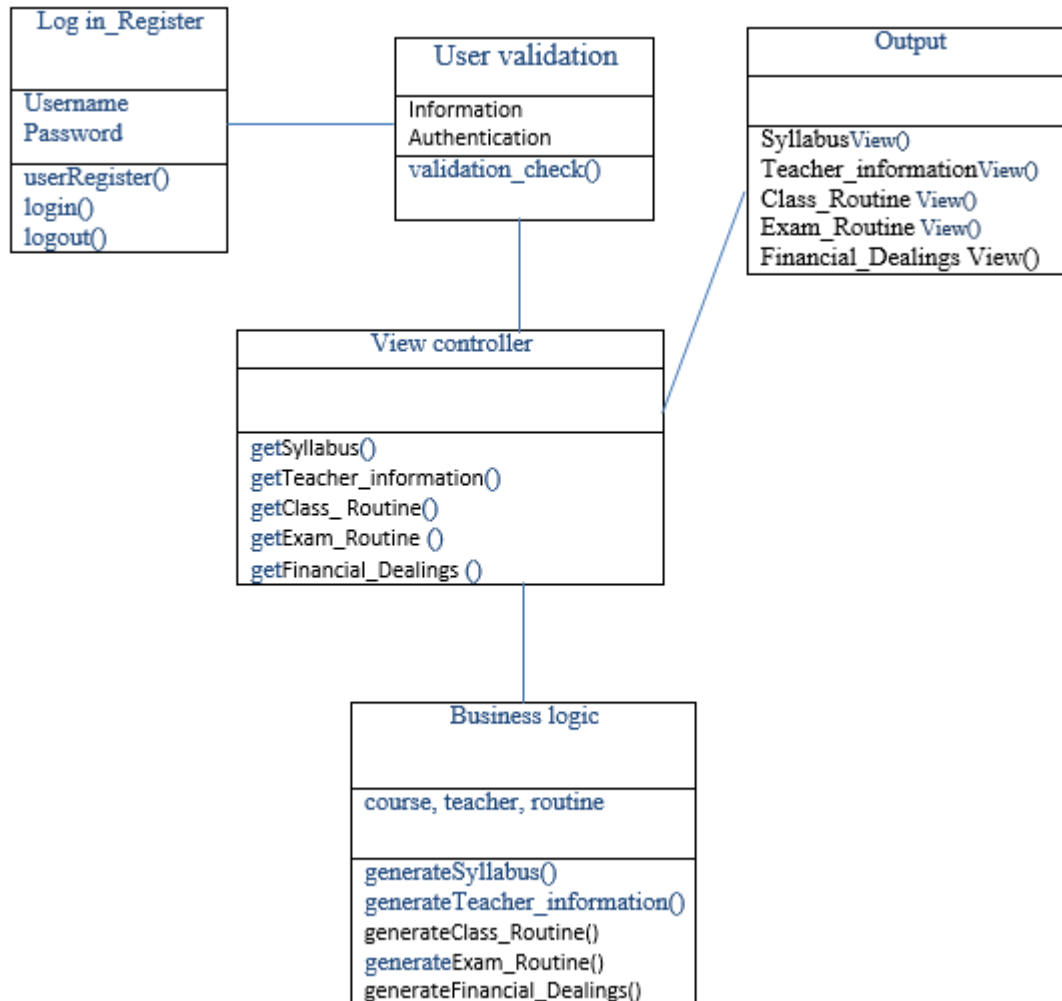# 6.3 Detailed Class Diagram

6.1 View information

Fig 2: Class diagram for viewing information

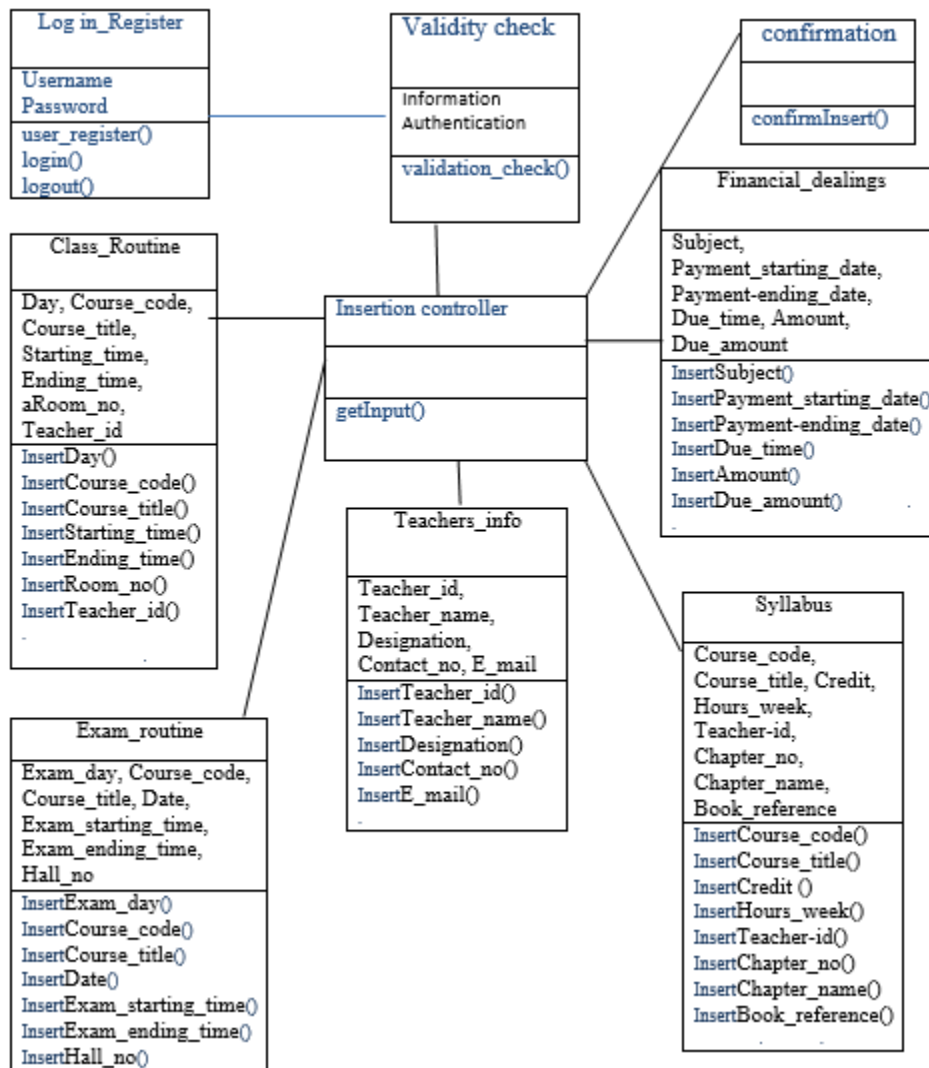## 6.2 Insert data in the specific table:

Fig 3: Class diagram for inserting data
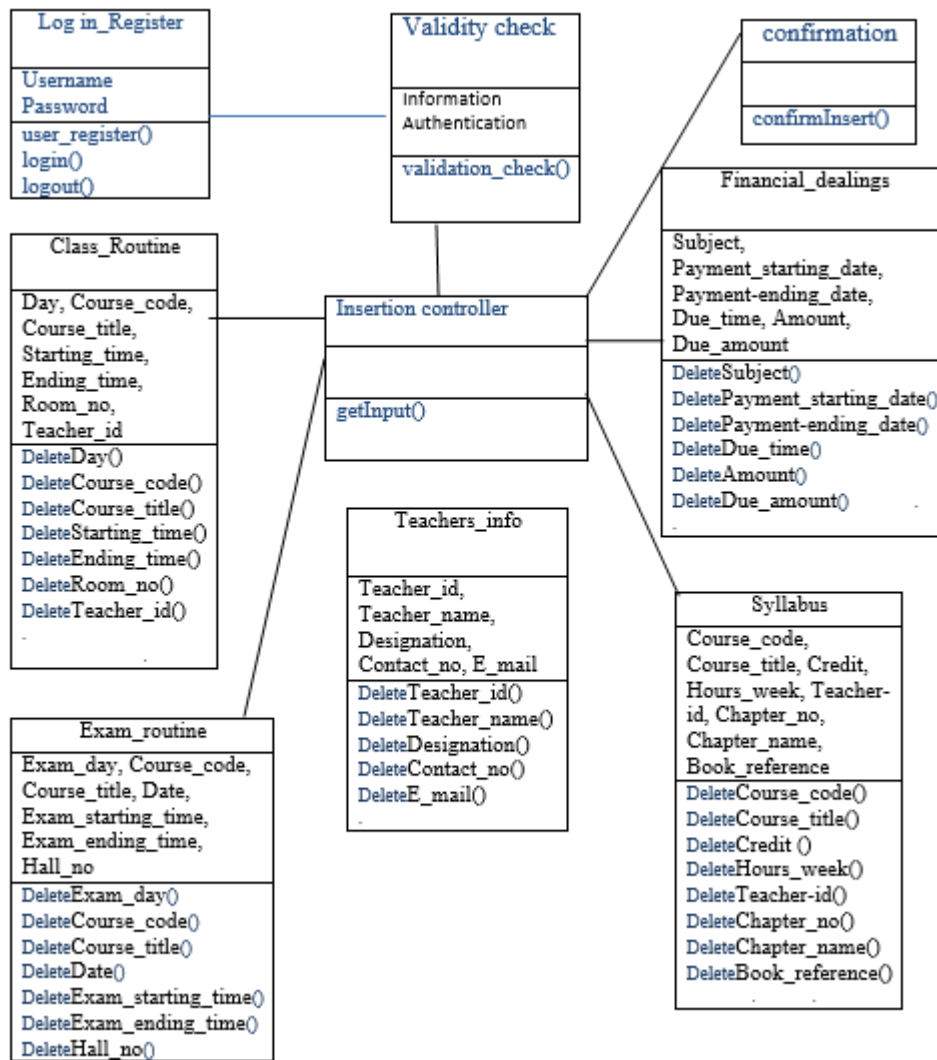
6.3 Delete data in the specific table:

Fig 4: Class diagram for deleting data
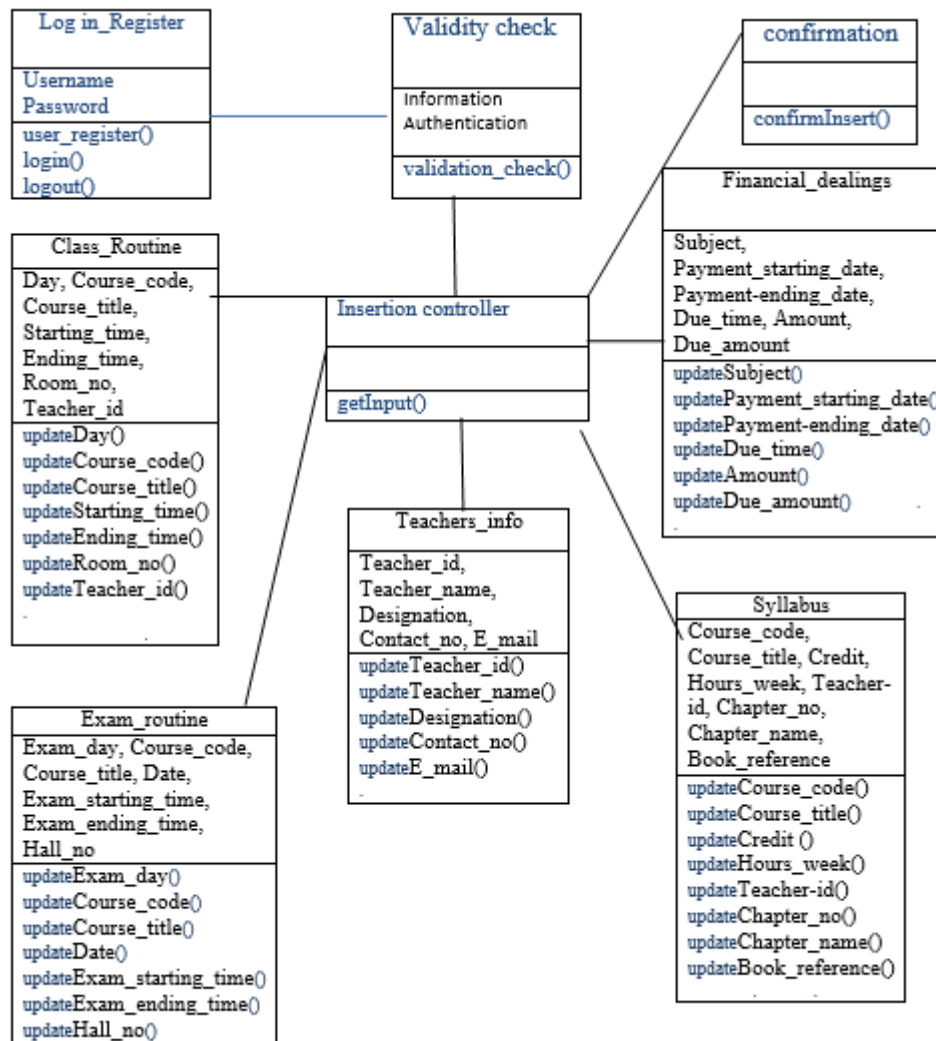
6.4 Update data in the specific table:

Log in_Register

Username
Password
user_register()
login()
logout()

Validity check

Information
Authentication

validation_check()

confirmation

confirmInsert()

Financial_dealings

Subject,
Payment_starting_date,
Payment-ending_date,
Due_time, Amount,
Due_amount

updateSubject()
updatePayment_starting_date()
updatePayment-ending_date()
updateDue_time()
updateAmount()
updateDue_amount()

Class_Routine

Day, Course_code,
Course_title,
Starting_time,
Ending_time,
Room_no,
Teacher_id

updateDay()
updateCourse_code()
updateCourse_title()
updateStarting_time()
updateEnding_time()
updateRoom_no()
updateTeacher_id()

Insertion controller

getInput()

Teachers_info

Teacher_id,
Teacher_name,
Designation,
Contact_no, E_mail

updateTeacher_id()
updateTeacher_name()
updateDesignation()
updateContact_no()
updateE_mail()

Syllabus

Course_code,
Course_title, Credit,
Hours_week, Teacher-
id, Chapter_no,
Chapter_name,
Book_reference

updateCourse_code()
updateCourse_title()
updateCredit ()
updateHours_week()
updateTeacher-id()
updateChapter_no()
updateChapter_name()
updateBook_reference()

Exam_routine

Exam_day, Course_code,
Course_title, Date,
Exam_starting_time,
Exam_ending_time,
Hall_no

updateExam_day()
updateCourse_code()
updateCourse_title()
updateDate()
updateExam_starting_time()
updateExam_ending_time()
updateHall_no()

Fig 5: Class diagram for updating information

6.4 System's Demonstration
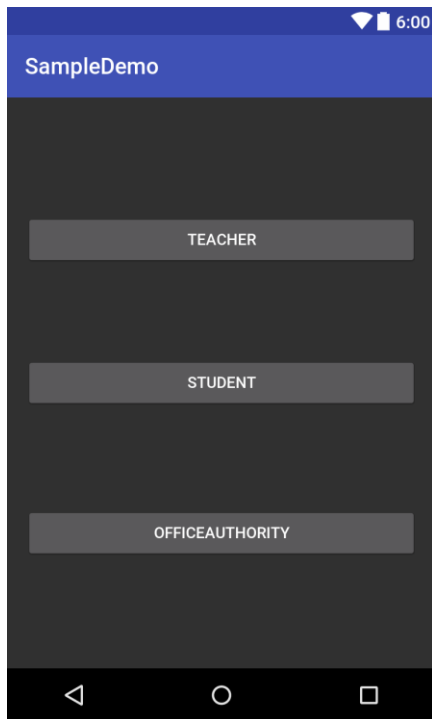
6.4.1 Snap of selecting user

Fig 6: selecting user

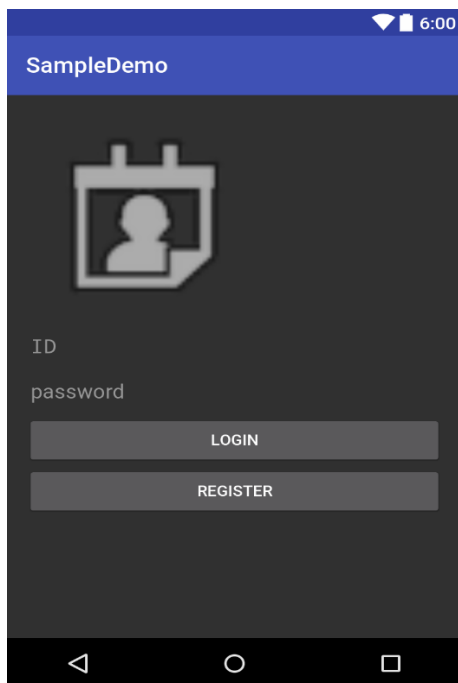### 6.4.2 Snap of selecting Login and Registration for Office Authority

Fig 7: selecting Login and Registration for Office Authority

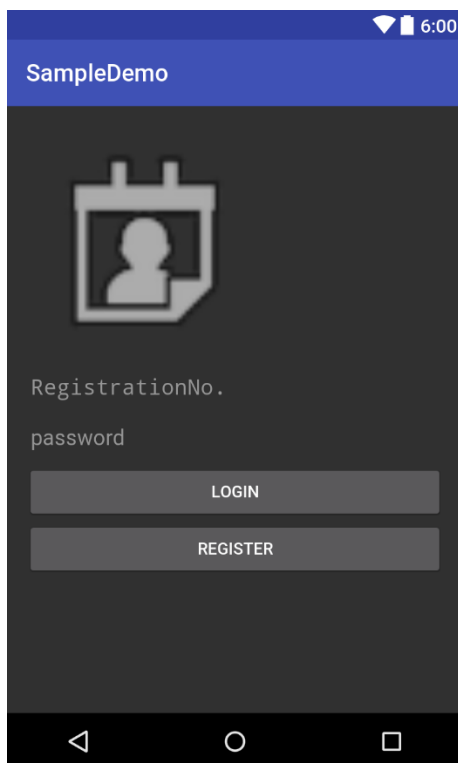### 6.4.3 Snap of selecting login and Registration for Students

Fig 8: selecting login and Registration for Students

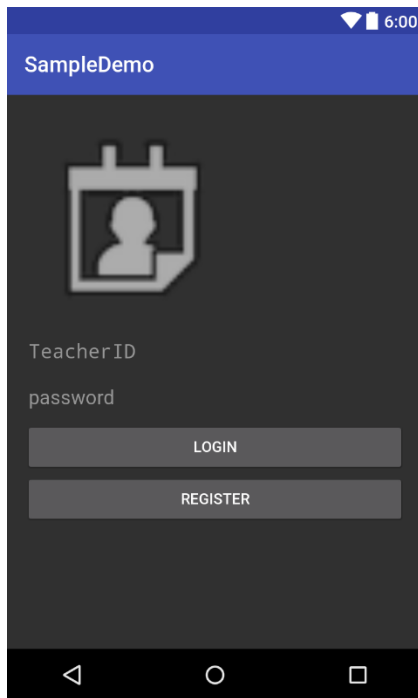*6.4.4 Snap of selecting login and registration for Teachers*

Fig 9: selecting login and registration for Teachers
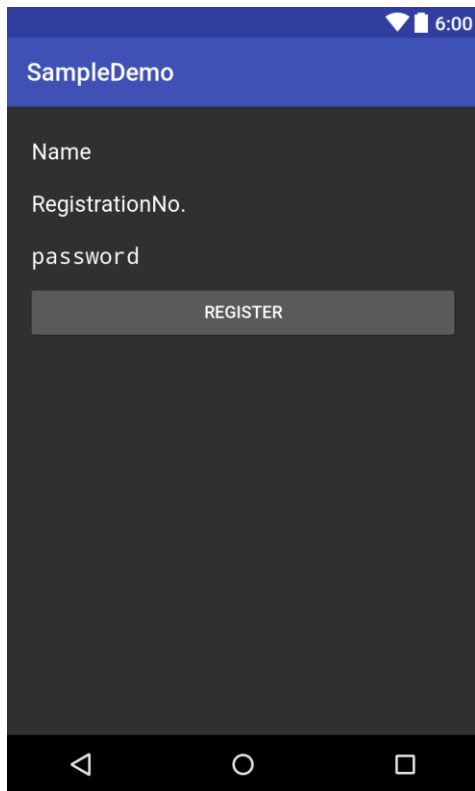
6.4.5 Snap of selecting Registration for Students

Fig 10: selecting Registration for Students

6.4.6 Snap of required information related database of our respected teachers

teacher_id	teacher_name	designation	contact_no	e_mail
106001	Dr. Mohammad Shahadat Hossain	professor	01819336660	hossain_ms@hotmail.com
106002	Dr. Md. Hanif Seddiqui	professor	01933236173	hanif@cu.ac.bd
106003	Dr. Mohammad Khairul Islam	professor	01919611867	chairman.cse@cu.ac.bd
106004	Dr. Mohammad Osiur Rahman	professor & chairman	01716339133	osiur_rahman@yahoo.com
106005	Dr. Muhammad Mostafa Monowar	associate professor	01190165919	monowar@cu.ac.bd
106006	Muhammad Anwarul Azim	associate professor	01799634272	azim@cu.ac.bd
106007	Dr. Mohammad Sanaullah Chowdhury	associate professor	01924427634	sana1691@gmail.com
106008	Dr. Rashed Mostafa	associate professor	01819646333	rashed.m@cu.ac.bd
106009	Mr. Nihad Karim Chowdhury	associate professor	01713462026	nihad@cu.ac.bd
106010	Mr. Kazi Ashrafuzzaman	assistant professor	01717124315	ashraf@cu.ac.bd
106011	Mr. Md. Rukun Uddin Faroque	assistant professor		NULL
106012	Mr. Fahim Irfan Alam	assistant professor	01xxxxxxxxx	fahim1678@gmail.com
106013	Mr. Iqbal Ahmed	assistant professor	01711481086	iqbal.ahmed@cu.ac.bd
106014	Mrs. Farah Jahan	assistant professor	01819611867	farah_csc@yahoo.com
106015	Mr. Rezaul Karim	assistant professor	01817715159	pinnacleofsuccess@yahoo.c
106016	Rudra Pratap Nath	assistant professor	01xxxxxxxxx	prataprudracsecu@gmail.co
106017	A. H. M. Sajedul Hoque	assistant professor	01716496886	hoque.cse@cu.ac.bd
106018	Mr. Atiqur Rahman	assistant professor	01712907724	atiqcse09@cu.ac.bd
106019	Shima Chakraborty	assistant professor	01726150579	shimacse@cu.ac.bd
106020	Nasrin Sultana	assistant professor	01717027436	nasrin1219@gmail.com
106021	Md. Mahbubul Hoque	assistant professor	01818791084	mahbubcse@cu.ac.bd

Fig 11: information related database

6.5 Limitation of System

As there is no notification system for any function, users will not get notified at that time about the sudden changes of information.

6.6 Future Work

We will add notification system in our software as soon as possible. Moreover, we will try to work with all the research carried out by the teachers and notable works by students. We think that this will help other students to progress as they will gather more knowledge. We will work to improvise our system for larger platform.

6.7 Conclusion

Academic Schedule Management System will be very much helpful for all the people related to any specific educational institution. The aim was to automate and make a system that is useful to the organization such as an institution. They will get to know all information in the shortest possible time. We tried to make our system user-friendly. We hope that our app will save time and energy of all user.