

# COMPUTER UNIVERSITY (MANDALAY)



## FINAL YEAR PROJECT REPORT

Chaw  
(Mandalay), for her helpful recommendations and suggestions

ON

We also would like to thank our special acknowledgement to my supervisor, Daw Tin Tin Soe, Lecturer, Mathematics Department, Computer University (Mandalay) for her valuable guidance and encouragement.

## STUDENT'S ROLL CALL SYSTEM FOR COMPUTER UNIVERSITY (MANDALAY)

(Mandalay), Daw Lin Lin Htet, Tutor, English Department, for guiding our project from the English language point of view.

We would like to express our grateful thank to all teachers in Computer University (Mandalay) for their helpful advice.

**Bachelor of Computer Science**

Finally we would like to thank our teacher, friends and colleagues of Computer University (Mandalay) for their cooperation and help to complete this project successfully.

**Presented by Group (11)**

**2014 -2015**

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We also would like to thank **U Thaung Kyaw**, Associate Professor, Head of English Department, Computer University (Mandalay), Daw Lin Lin Htet , Tutor, English Department, for editing our project from the English language point of view.

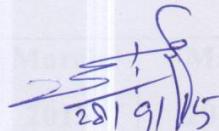
We would like to express our grateful thank to all teachers at Computer University (Mandalay) for their helpful advice.

Finally, we are very grateful to all our teacher, friends and colleagues of Computer University (Mandalay) for their cooperation and help to complete this project successfully.

## Group Member List

Sr.No	Name	RollNo.
1	Ma Wai Wai Hnin	4CS-16
2	Ma Thin Htet Zaw	4CS-55
3	Mg Kyaw Myo Htun	4CS-120
4	Ma Aye Chan May	4CS-153

Supervisor



28/9/15

Name: : Daw Tin Tin Soe

Rank : :Lecturer

Department: :Mathematic Department

Computer University (Mandalay)

## Project Schedule

**Project Proposal :** :March,2015

**First Seminar :** :20.5.2015

**Second Seminar :** :24.6.2015

**Third Seminar :** :6.8.2015

**Book Submission :** :September,28.9.2015

Time Schedule	March 2015	May 2015	June 2015	August 2015	September 2015
<b>Project Proposal</b>					
<b>First Seminar</b>					
<b>Second Seminar</b>					
<b>Third Seminar</b>					
<b>Book Submission</b>					

## Abstract

Most health care databases include time-stamped instant data which is called the only temporal representation of patient information. These, however, have required either a sophisticated database representation of time, including time intervals, or a time-stamp-based. Students are not allowed to sit for the examination if they get the attendance less than 75% of the whole academic year. Monthly the student roll calls are calculated and all of the student have to know how much they get attendant roll calls in advanced. This project is implemented by using Java Programming Language. This project applied to calculate for up to date information in this University. Finally, this project can announce the result less than 75% in the notice board.

1.1 Introduction

1.2 The objectives of the project

1.3 Project Requirements

1.3.1 Hardware Requirements

1.3.2 Software Requirements

## CHAPTER 2: PROJECT BACKGROUND

2.1 Temporal database

2.2 Instant

2.2.1 Valid time

2.2.2 Transaction time

## CONTENTS

	Page
<b>Acknowledgements</b>	i
<b>Group Member List</b>	ii
<b>Project Schedule</b>	iii
<b>Abstract</b>	iv
<b>List of Figures</b>	v
<b>List of Tables</b>	vi
<b>CHAPTER 1 INTRODUCTION</b>	
1.1    Introduction	1
1.2    The objectives of the project	1
1.3    Project Requirements	2
1.3.1 Hardware Requirements	2
1.3.2 Software Requirements	2
<b>CHAPTER 2 THEROY BACKGROUND</b>	
2.1    Temporal database	3
2.2    Timestamp	4
2.2.1 Valid time	5
2.2.2 Transaction time	6

## CHAPTER 3 DESIGN AND IMPLEMENTATION

3.1	System Flow Diagram	7
3.2	Use Case Diagram	8
3.3	Data Set Table	9
3.4	Implementation of the Project	14
3.4.1	Processing for Operator	15

## CHAPTER 4 CONCLUSION

4.1	Conclusion	22
4.2	Advantages of the Project	22
4.3	Limitations and Further Extension	22

## REFERENCES

3.10	Calculate Message for Operator	19
3.11	Less Than 75 Percent for Operator	19
3.12	Greater Than Equal 75 Percent for Operator	20

**LIST OF FIGURES**

<b>FIGURES</b>		<b>PAGE</b>
3.1	System Flow Diagram for Operator	7
3.2	Use Case Diagram for RollCall System	8
3.3	Home Page of the Project	14
3.4	Insert RollCall Page for Operator	15
3.5	RollNo for Operator	16
3.6	Date for Operator	16
3.7	Successful Insert data for Operation	17
3.8	Calculate RollCall Page for Operator	17
3.9	Monthly for Operator	18
3.10	Calculate Message for Operator	19
3.11	Less Than 75 Percent for Operator	19
3.12	Greater Than Equal 75 Percent for Operator	20

## LIST OF TABLES

Tables	INTRODUCTION	Page
3.1	ClassCode	9
3.2	TimeCode	9
3.3	Student-Register File	10
3.4	Attendent for December (Monthly)	11
3.5	Attendent for January (Monthly)	12
3.6	Final Result	13

For reporting student information by monthly using temporal database. It makes the student attend regularly and force them to improve their lecture attendance. It is also a discipline for students to attend 75% of the attendance at least throughout the semester in order to be able to take the final examination. Attendance is the one of the disciplines which the students must obey.

### 1.2 The objectives of the Project are:

- To successfully using this system.
- To reduce human effort and human error.
- To reply quickly when the user requests their personal information.
- To be able to the user's record every time.
- To know temporal database.

## CHAPTER 1

### INTRODUCTION

#### 1.1 Introduction

Roll call is process to calculate of the roll call for daily, weekly, monthly. Roll call are used the places such as university. Roll call is recorded the names of students from a list (roll) to determine the presence or absence. Temporal database contains historical roll call and current roll call. Historical data is using timestamp. It makes certain constraints and certain queries.

For report student information by monthly using temporal database. It makes the students attended regularly and force them to improve the lecture I attention. It is also a discipline for students to attend 75% of the attendance at least throughout the semester in order to be able to take the final examination. Attendance is the one of the disciplines which the students must obey.

#### 1.2 The objectives of the Project are:

- To save time by using this system.
- To reduce human effort and human error.
- To reply quickly when the user requests their percent.
- To be able to the user's record every time.
- To know temporal database.

### 1.3 Project Requirements

This project is implemented by using Java Programming Language and Microsoft Office Access Database. Data Sets are used from Roll Call. Daily roll call is stored in database and is calculated.

#### 1.3.1 Hardware Requirements

1. Desktop Computer or Laptop
2. Processor 1.70GHz
3. RAM 4.00GB

#### 1.3.2 Software Requirements

1. Microsoft Office Access 2007
2. Eclipse for Java Programming
3. JDK 7

## CHAPTER 2

### THEORY BACKGROUND

#### 2.1 Temporal database

Temporal database is only inserted, never deleted or updated, contains historical data. The equivalence between snapshot and timestamp temporal database and makes it possible to view the design of temporal database schemas as a special case of the design of relational database schemas. Other case, 'Snapshot' database, contains current data only. The distinguishing feature of a temporal database is time itself. Temporal database stores data relating to time instances. It offers temporal data types and stores information relating to past, present and future time. It provide a uniform and systematic way of dealing with historical data.

Develops point-based data models and query languages for temporal databases in the relational framework. The models provide a separation between the conceptual data and the way the data is compactly represent in the temporal relations .

## 2.2Timestamp

A timestamp is the time at which an event is recorded by a computer, not the time of the event itself. In many cases, the difference may be inconsequential: the time at which an event is recorded by a timestamp should be close to the time of the event.

This data is usually presented in a consistent format, allowing for easy comparison of two different records and tracking progress over time; the practice of recording timestamps in a consistent manner along with the actual data. The sequential numbering of events is sometimes called timestamping. Timestamps are typically used for logging events or in a sequence of events

Timestamp aspects usually include valid time and transaction time. Bitemporal data combines both valid and transaction time. Timestamp is a sequence of characters or encoded information identifying when a certain event occurred, usually giving date and time of day, sometimes accurate to a small fraction of a second.

The term derives from rubber stamps used in offices to stamp the current date, and sometimes time, in ink on paper documents, to record when the document was received. Common examples of this type of timestamp are a postmark on a letter or the “in” and “out” times on a time.

## 2.2.1 Valid time

Valid time is the time period during which a fact is true with respect to the real world. A database fact is stored in a database at some point in time and after it is stored, it is currently until logically deleted. Historical information provided by the valid time.

**Example:**

Date	What happened in the real world	Database Action	What the database shows
April 3, 1975	John is born	Nothing	There is no person called John Doe
April 4, 1975	John's father officially reports John's birth	Inserted:Person(John Doe, Smallville)	John Doe lives in Smallville
August 26, 1994	After graduation, John moves to Bigtown, but forgets to register his new address	Nothing	John Doe lives in Smallville
December 26, 1994	Nothing	Nothing	John Doe lives in Smallville
December 27, 1994	John registers his new address	Updated:Person(John Doe, Bigtown)	John Doe lives in Bigtown
April 1, 2001	John dies	Deleted:Person(John Doe)	There is no person called John Doe

### 2.2.2 Transaction time

Transaction time is the time period during which a fact stored in the current in the database and may be retrieved. As a consequence, transaction times are generally not time instants, but have duration. Transaction times are consistent with the serialization order of the transaction. They can not extend into the future. Current information is provided by the transaction time.

The transaction-time period is stored in a transaction-time column:

The beginning of the transaction-time period is the time when the database became aware of a row, when the row was first recorded in the database. This is when the row was added to a table.

The end of a transaction time period reflects when the fact was superseded by an update to the row, or when the row was deleted from the database. Rows containing information that is currently in effect have transaction-time periods with indefinite ending.

## CHAPTER 3

### DESIGN AND IMPLEMENTATION

#### 3.1 System Flow Diagram

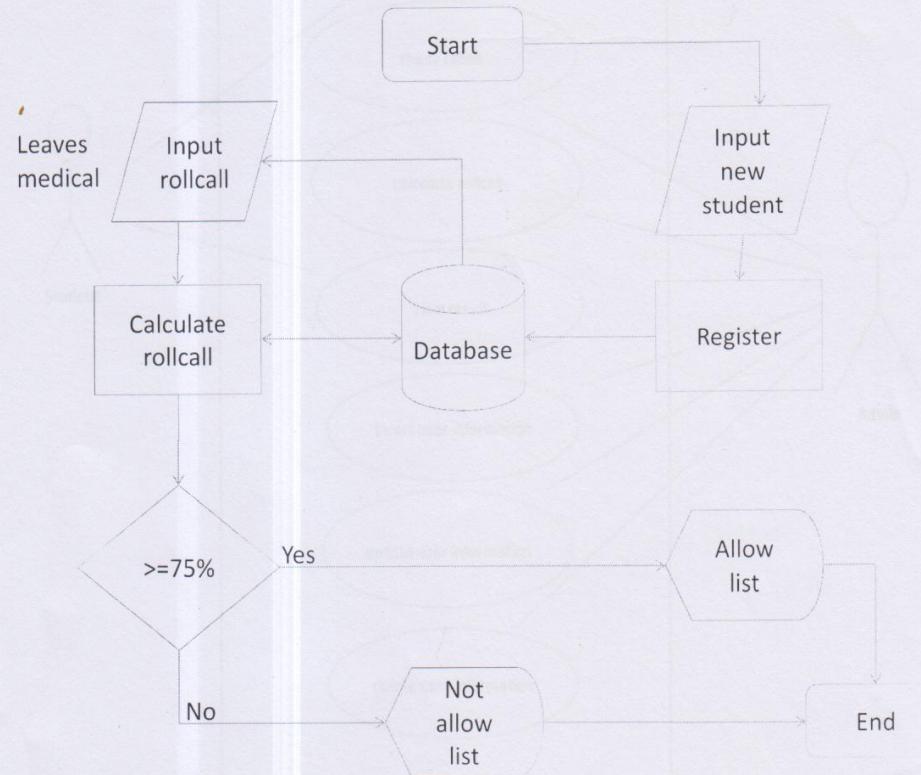


Figure:3.1 System Flow Diagram for Operator

### 3.2 Use Case Diagram

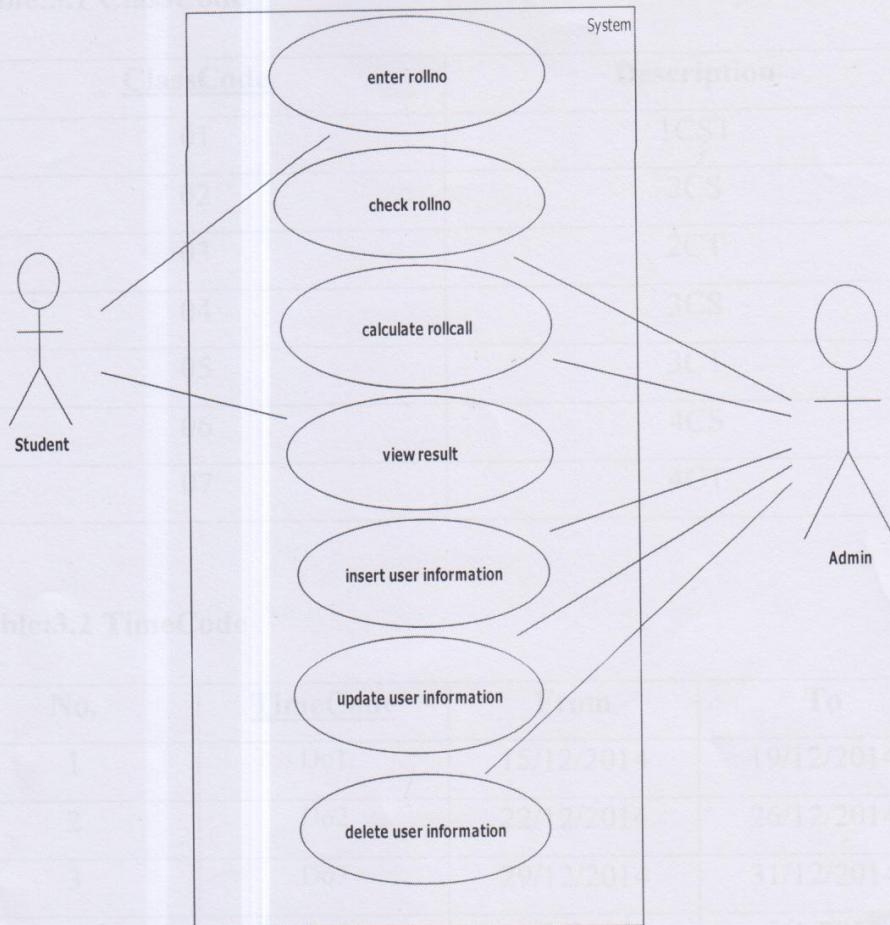


Figure:3.2 Use Case Diagram for RollCall System

### 3.3 Data Set Tables

Table:3.1 ClassCode

<u>ClassCode</u>	<u>Description</u>
01	1CST
02	2CS
03	2CT
04	3CS
05	3CT
06	4CS
07	4CT

Table:3.2 TimeCode

No.	<u>TimeCode</u>	<u>From</u>	<u>To</u>
1	Do1	15/12/2014	19/12/2014
2	Do2	22/12/2014	26/12/2014
3	Do3	29/12/2014	31/12/2014
4	Do4	1/1/2015	2/1/2015
5	Do5	5/1/2015	9/1/2015
6	Do6	12/1/2015	16/1/2015
7	Do7	19/1/2015	23/1/2015
8	Do8	26/1/2015	30/1/2015

Table:3.4 Attendent for December(Monthly)

No.	Roll No	Name	TimeCode			Total Attendent	Total	%
			Do1	Do2	Do3			
1	1	Ma July Moe	35	35	17	89	91	96
10	10	Mg Bo Bo	33	33	20	86	91	95
11	1	Ma Su Su	30	35	21	86	91	83
15	5	Ma Nay Chi	23	20	15	58	91	64
16	1	Mg Tin Tun	35	30	21	77	91	85
20	7	Ma Moe Than	30	28	10	68	91	75
21	1	Ma Zar Ni	32	35	0	67	91	74
25	6	Mg Zaw Myo	20	20	17	57	91	63
26	1	Mg Zayar Thaw	32	30	21	83	91	91
30	5	Ma Khin Soe	35	31	19	85	91	93
31	1	Mg Hla Soe	35	26	20	81	91	89
35	5	Mg Nay Lin	30	31	20	81	91	89
36	1	Mg Min Zaw	32	28	21	81	91	89

Table:3.5 Attendent for January(Monthly)

No.	Roll No	Name	TimeCode					Total Attenden t	Total	%
			Do 4	Do 5	Do 6	Do 7	Do 8			
1	1	Ma July Moe	10	30	30	30	29	129	154	84
10	10	Mg Bo Bo	14	24	27	35	14	104	154	68
11	1	Ma Su Su	10	35	20	35	30	130	154	84
15	5	Ma Nay Chi	0	35	21	0	35	81	154	53
16	1	Mg Tin Tun	7	30	35	0	35	107	154	69
20	7	Ma Moe Than	14	8	25	30	35	102	154	66
21	1	Ma Zar Ni	14	20	0	20	35	89	154	58
25	6	Mg Zaw Myo	0	30	35	35	10	110	154	71
26	1	Mg Zayar Thaw	14	35	10	10	35	104	154	68
30	5	Ma Khin Soe	10	35	20	0	35	100	154	65
31	1	Mg Hla Soe	10	30	32	35	0	105	154	68
35	5	Mg Nay Lin	14	35	30	25	30	134	154	87
36	1	Mg Min Zaw	14	30	25	30	35	134	154	87

**Table:3.6 Final Result**

No.	Roll No	Name	RollCall	Leave
1	1	Ma July Moe	89	
10	10	Mg Bo Bo	78	
11	1	Ma Su Su	88	
15	5	Ma Nay Chi	56	
16	1	Mg Tin Tun	75	
20	7	Ma Moe Than	69	
21	1	Ma Zar Ni	64	
25	6	Mg Zaw Myo	68	
26	1	Mg Zayar Thaw	76	
30	5	Ma Khin Soe	76	
31	1	Mg Hla Soe	76	
35	5	Mg Nay Lin	88	
36	1	Mg Min Zaw	88	

### 3.4 Implementation of the Project

This project is implemented by using Java programming language and Microsoft Access Database. Microsoft Access Database includes ClassCode table, TimeCode table, Student-Register File table, Attendent table and Final Result table. ClassCode and TimeCode are primary key. Attributes include RollNo, Name, TimeCode, TotalAttendent, Total, Percent in Attendent table. In table, ClassCode and Student-Register File table are in relationship with two dimension tables and TimeCode table and Attendent table are in relationship with two dimension tables.

Implementation result is designed for Operation process. Home Page is shown in figure(3.3). Home Page includes two menus: Enter for operator and Cancel menu is for quit the project.

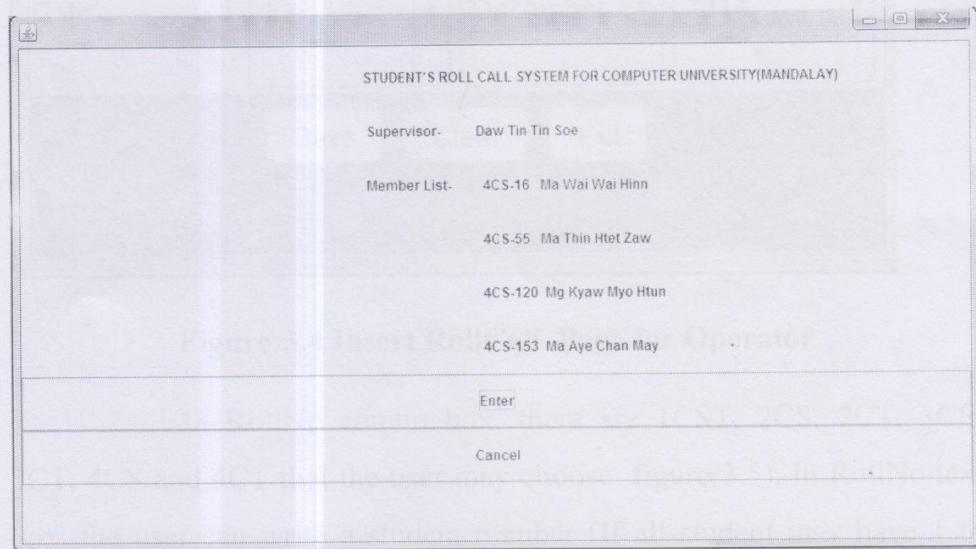
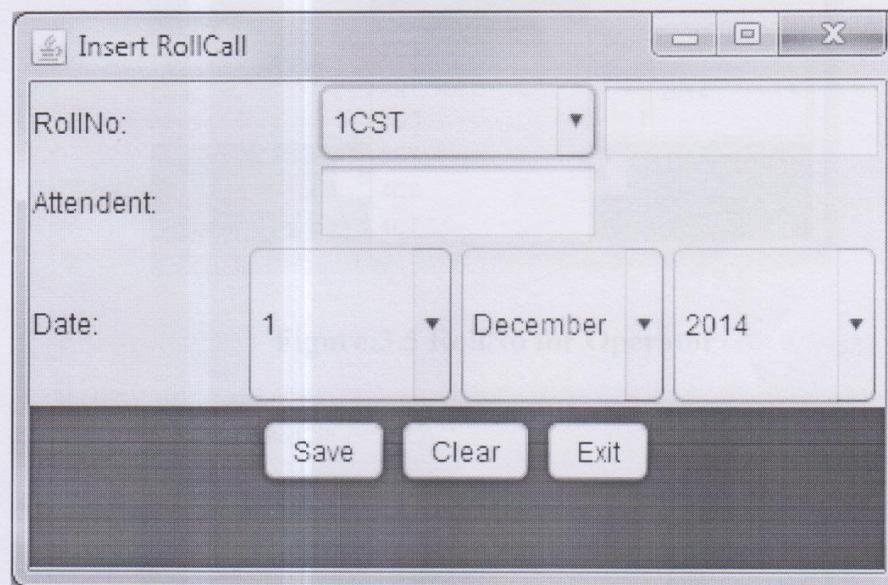


Figure:3.3 Home Page of the Project

### 3.4.1 Processing for Operator

In operator view, this page display and Enter is for daily transaction. Click “Enter” button and it's shown Insert rollcall, Calculate rollcall, Less Than 75 and Greater Than equal 75. User clicks “Insert rollcall” button as shown in figure (3.4).



**Figure:3.4 Insert RollCall Page for Operator**

In RollNo combo box, there are 1CST, 2CS, 2CT, 3CS, 3CT, 4CS and 4CT that the user may choose figure(3.5). In RollNo text box, the user can write a student number (If all student may have 1 to 100, user can write 1 to 100) . In Attendent text box, the user write a student's attendant record day by day .

In Date combo box, the user may choose every day. After inputting text box and choosing combo box, the user clicks “Save” button to save one record and if save successful, the user will see “Successful Insert” by message box shown in figure (3.7) and user clicks “OK” button. The user clicks “Clear” button to clear all text box. The user clicks “Exit” button to exit this page.

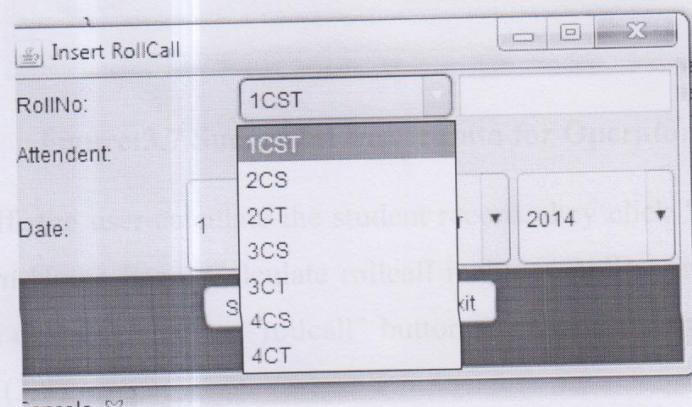


Figure:3.5 RollNo for Operator

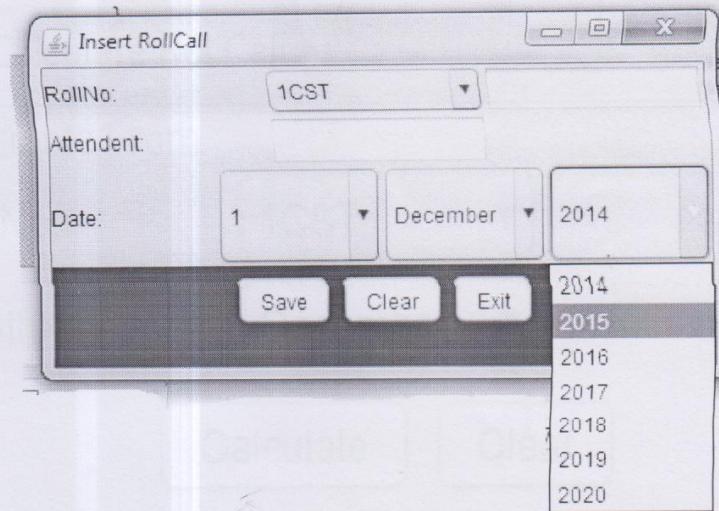
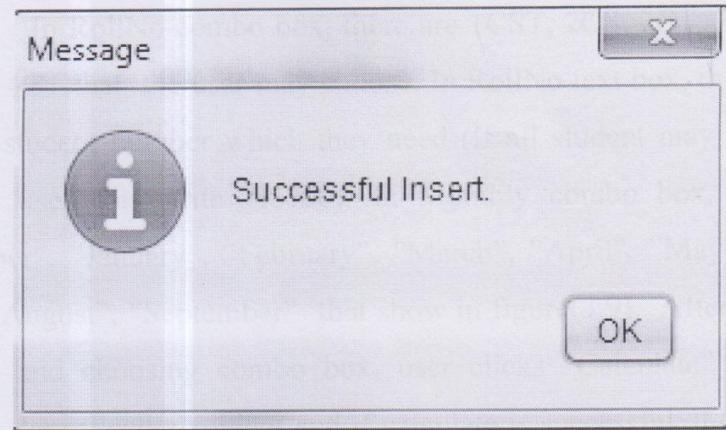
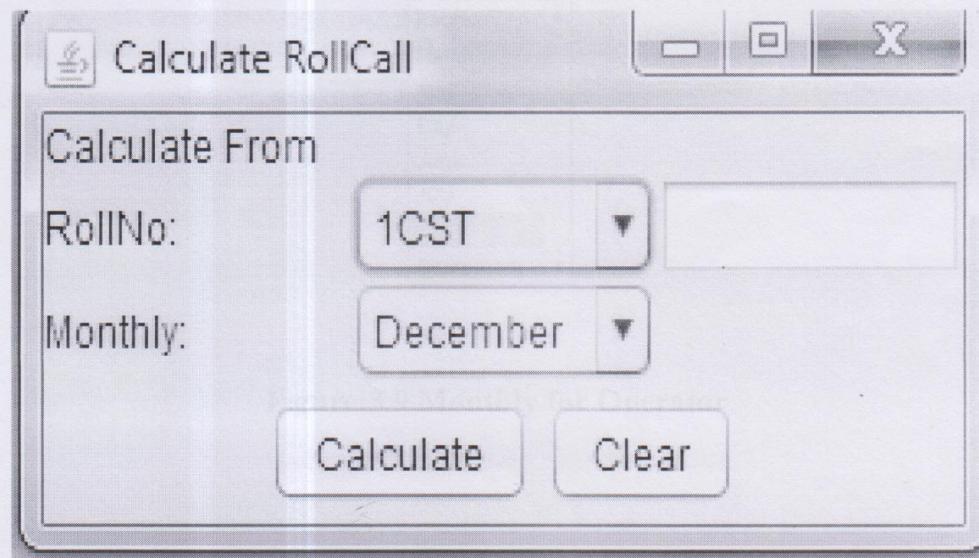


Figure:3.6 Date for Operator



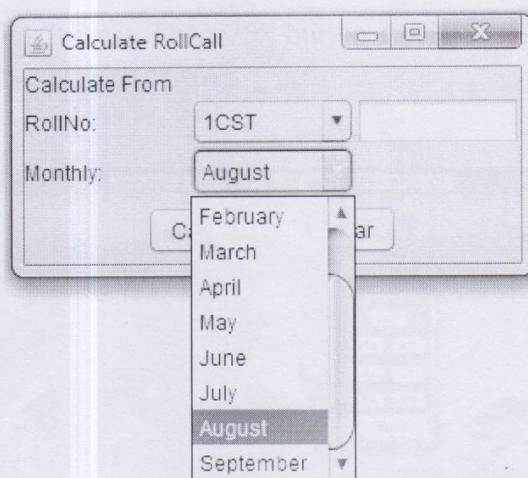
**Figure:3.7 Successful Insert Data for Operator**

If the user calculate the student record, they click ‘Exit’ button and return Home Page. Calculate rollcall includes RollNo and Monthly. User can clicks “Calculate rollcall” button to calculate a student shown in figure (3.8).

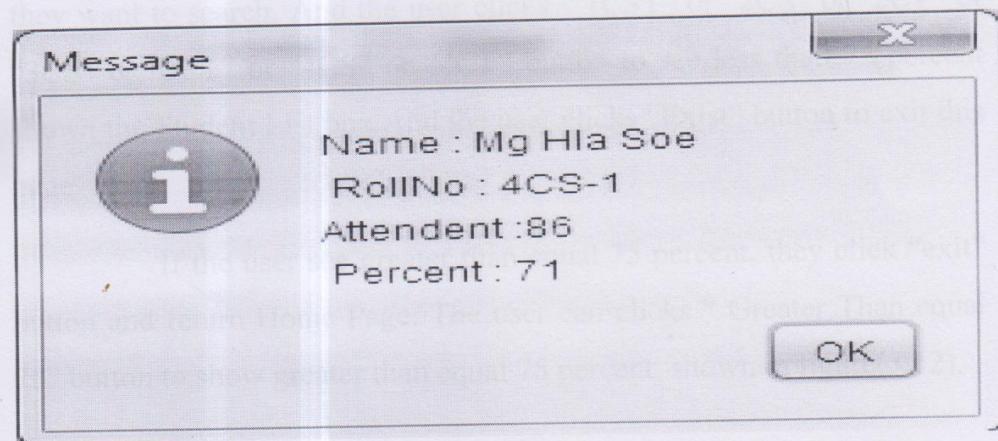


**Figure:3.8 Calculate RollCall Page for Operator**

In RollNo combo box, there are 1CST, 2CS, 2CT, 3CS, 3CT, 4CS and 4CT that the user may choose. In RollNo text box, the user can write a student number which they need (If all student may have 1 to 100, the user can write 1to100). In Monthly combo box, there are "December", "January", "February", "March", "April", "May", "June", "July", "August", "September" that show in figure(3.9). After inputting text box and choosing combo box, user clicks "Calculate" button to calculate the rollcall a student and if calculate is successful, the user will see shown in figure (3.10) and the user clicks "OK" button. User clicks "Clear" button to clear all text box.

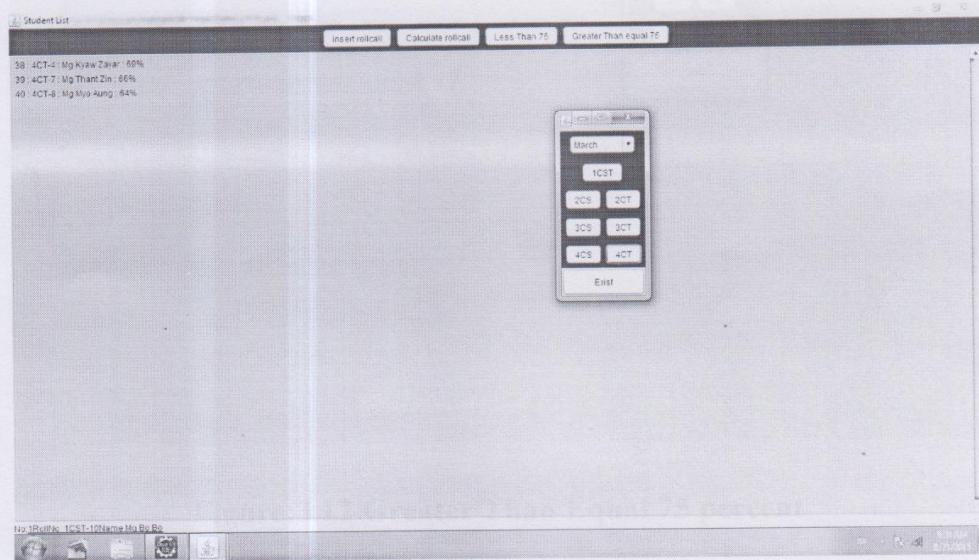


**Figure:3.9 Monthly for Operator**



**Figure:3.10 Calculate Message for Operator**

If the user see less than 75 percent all student, return Home Page. The user can click “ Less Than 75” button to show less than 75 percent shown in figure (3.11).



**Figure:3.11 Less Than 75 Percent for Operator**

In Monthly combo box, the user can choose the month which they want to search. And the user clicks “1CST” or “2CS” or “2CT” or “3CS” or “3CT” or “4CS” or “4CT” button to see less than 75 percent shown the Student List box And the user clicks “Exist” button to exit this page.

If the user see greater than equal 75 percent, they click “exit” button and return Home Page. The user can clicks “ Greater Than equal 75” button to show greater than equal 75 percent shown in figure(3.12).

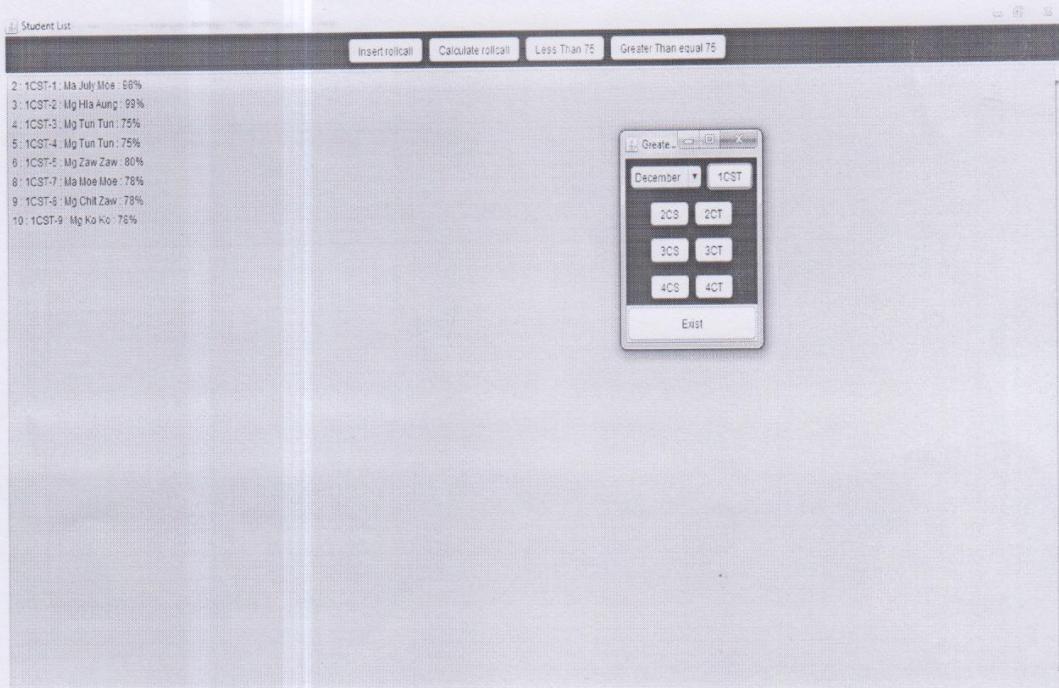


Figure:3.12 Greater Than Equal 75 percent

In Monthly combo box, the user can choose the month which they want to search. And the user clicks “1CST” or “2CS” or “2CT” or “3CS” or “3CT” or “4CS” or “4CT” button to see greater than equal 75 percent all student as RollNo shown the Student List box And user clicks “Exist” button to exit this page.

Attendance marks are calculated and all of the students will record their improvement by themselves. By using temporal database, report student information that are stored in it that partition in order to know day, week, month and year. This system is the used to understand roll call of Computer University (Mandalay) to understand. Finally, this system can result attendant of student if they are less than 75 percent or greater than 75 percent.

#### 4.2 Advantage of the project

Because of this system, all students has a discipline to attend the class regularly. By using this system, our professor can helped by other side. By applying this system, users can save time.

#### 4.3 Further Extension

This system emphasizes on Computer University (Mandalay). This system can be extended to use for other fields such as other universities, schools, and etc.

## CHAPTER (4)

### CONCLUSION

#### 4.1 Conclusion

System Monthly roll calls are calculated and all of the students noticed student's record their improvement by themselves. By using temporal database ,report student information that are stored in it that partition in order to know day, week, month and year. This system is used to understand roll call of Computer University (Mandalay) to understand. Finally ,this system can result attendant of student if they are less than 75 percent or greater than 75 percent.

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## References

- [1] C.J.DATE,"An Introduction to Database Systems"(Seventh Edition), ISBN 0-201-68419-5
- [2] <https://en.m.wikipedia.org/wiki/database>
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