Swami Vivekananda Institute of Science & Technology

Computer Science & Technology

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Course Code: CST

College Name: Swami Vivekananda Institute of Science & Technology

Council Name: West Bengal State Council of Technical Education

ACKNOWLEDGEMENT

We take this opportunity to express our deep sense of gratitude and whole hearted thanks to our project guide Ms. Nilanjana Bose for her guidance. It is all because of her that our synopsis report could become a success. We are greatly indebted to her for guiding and helping us whenever we had any difficulties in our work.
We would also like to thank our friends and family members who have helped and supported us directly or indirectly for preparing this synopsis report.

Finally we wish to thank all faculty members of SVIST who were too co-operative and helpful.

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1. Introduction:

Hostel management system will keep details of each and every student by issuing their unique id which will be provided during the admission time. It will provide the expenditure details of mess department and able to keep track on the stock details of materials used under the mess departments. Admin can access information of each and every employee working under particular hostel number by using their unique number. The list of all working employees working under particular hostel will be displayed separately. Admin can add, delete, modify, and change information and other fields used in hostel management system. Admin can make changes in the mess charges, hostel charges, and other expenditures charges used within hostel campus.

2. Objectives of the Project:

The main objectives of this project work are that:

- Student will no longer apply for their hostels manually.
- The warden can see and access the student's data.
- This also will reduce the manual work of the persons in admin penal.
- It helps the admin to know the number of students that can leave in a room and a block.
- To ensure that the number of student staying in a room does not exceed specified limit.
- To know the number of items (e.g. bed, extra services) given to student staying in the hostel

3. Project Category:

Desktop Application.

4. Tools/Platform:

- Tools: Microsoft Visual Studio. Office Access 2007
- Platform: Windows.

5. Hardware & Software Requirements:

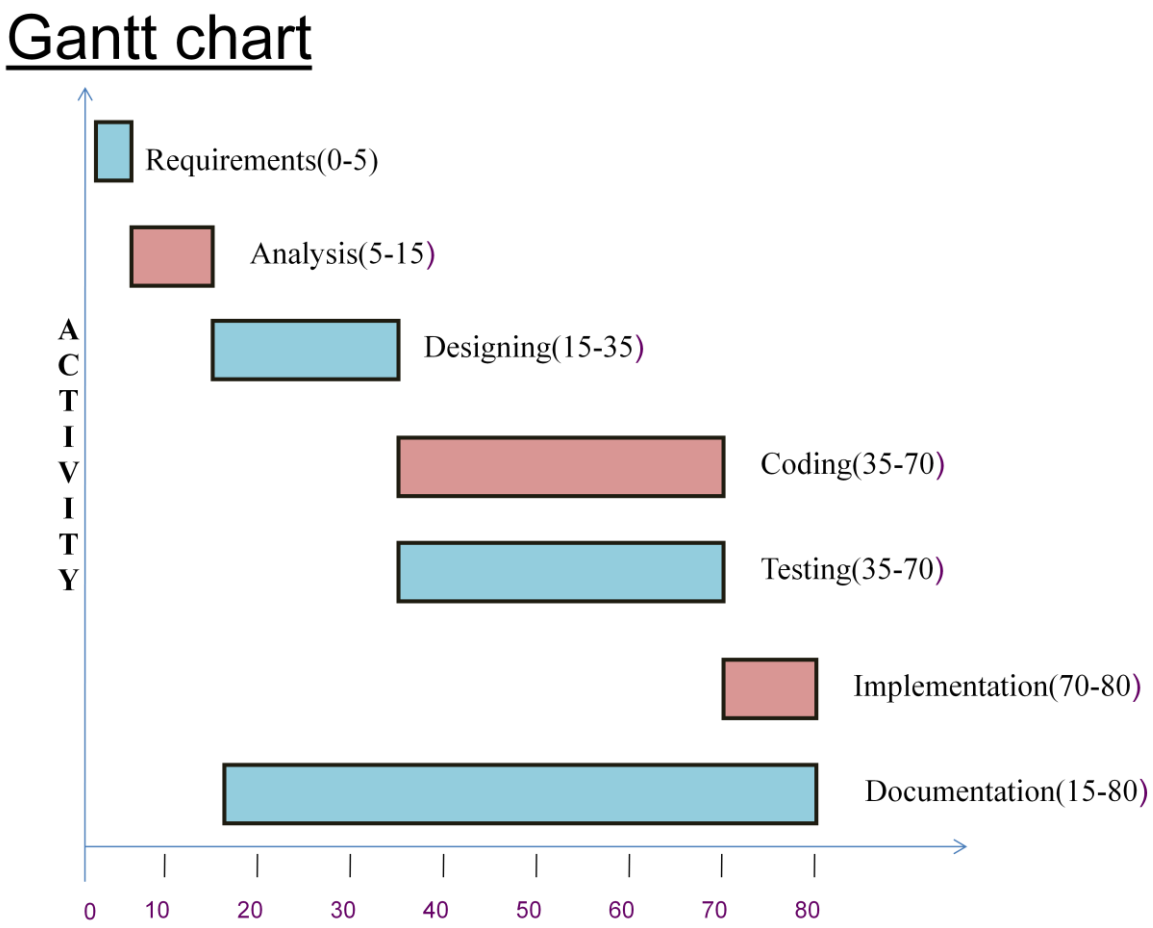
- 2.00Ghz or faster processor
- Windows 7 or higher.

6. Problem Definition:

Hostel management system will able to keep student records, attendance information for each student along with their room number and hostel number details. This system will also calculate the bills for each student for fooding provided by the mess department of every hostel.

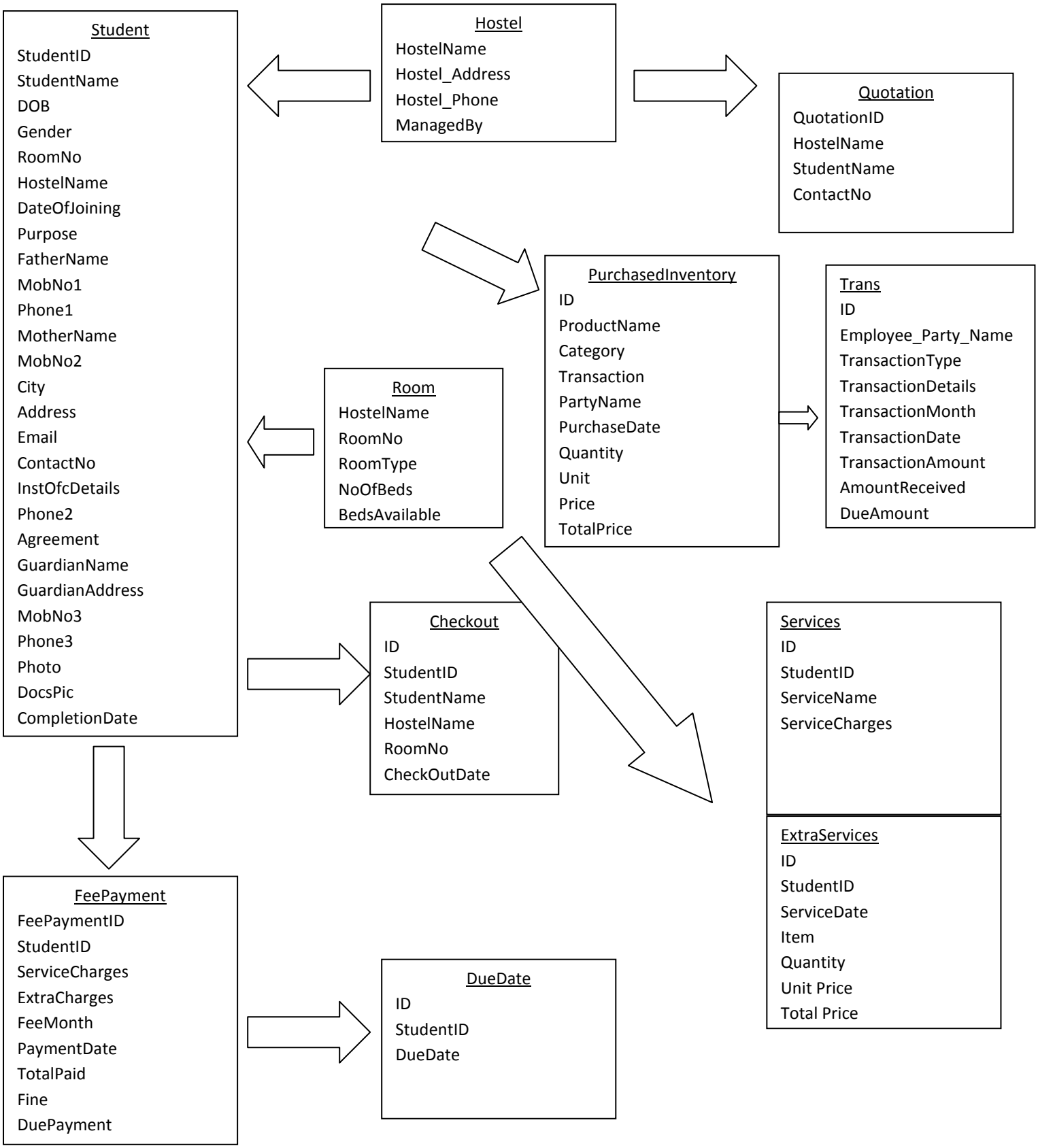
7. Project Planning (Scheduling):

Gantt chart:

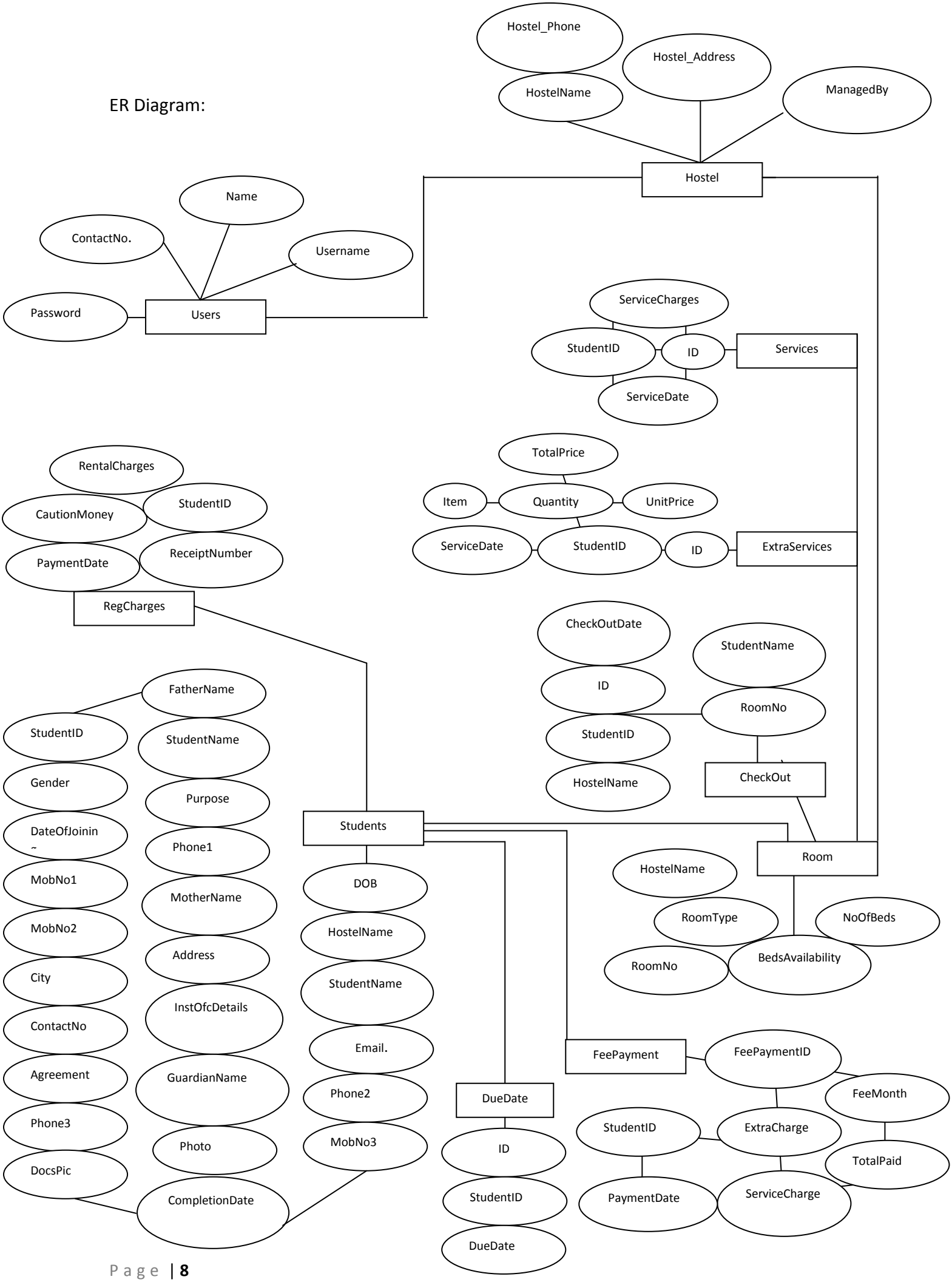


8. Analysis

DFD. (Level 0)



ER Diagram:


Hostel_Phone
Hostel_Address
HostelName
ManagedBy
Hostel
Name
ContactNo.
Username
Password
Users
ServiceCharges
StudentID
ID
Services
ServiceDate
TotalPrice
RentalCharges
Item
Quantity
UnitPrice
CautionMoney
StudentID
ServiceDate
StudentID
ID
ExtraServices
PaymentDate
ReceiptNumber
RegCharges
CheckOutDate
StudentName
ID
RoomNo
StudentID
CheckOut
HostelName
FatherName
StudentID
StudentName
Gender
Purpose
DateOfJoinin
~
Phone1
Students
Room
MobNo1
MotherName
DOB
HostelName
MobNo2
HostelName
RoomType
NoOfBeds
Address
City
StudentName
RoomNo
BedsAvailability
InstOfcDetails
ContactNo
Email.
FeePayment
FeePaymentID
Agreement
GuardianName
Phone2
DueDate
FeeMonth
Phone3
StudentID
ExtraCharge
Photo
MobNo3
ID
TotalPaid
DocsPic
StudentID
PaymentDate
ServiceCharge
CompletionDate
DueDate

9. Modules and their description:

Hostel:

Stores a list of Hostels, address, phone number, etc.

Students:

Stores the list of students, and their database such as Date of Joining, purpose, father's name, contact no, etc.

Checkout:

This module saves the date when a student leaves the hostel.

Checkout History:

This module saves the history of older students who have left the hostel.

DueDate:

Saves the fees due date of students with ID.

ExtraServices:

Saves the extra services availed by students (such as extra foods) during their stay.

FeePayment:

Saves the payments that are paid by students.

Purchased Inventory:

This field stores the inventory purchases by the every hostels.

Quotation:

Stores the proposed quotation(ie; how many months they want to stay there, and fees) by a student.

Reg Charges:

This field stores the Student's Registration charges with Receipt number, ID, Security deposit, rental charges along with payment date.

Registration:

Stores the user's UserID and Password.

Room:

This field stores the rooms availability of every hostels, along with Room No, type, beds and beds availability.

Services:

Stores the services availed by students, along with total service charges.

Trans:

This module saves the transactions done by users, both credit and debit for Hostel maintenance, item purchases such as buying groceries or electricity payments.

10. Data structure as per the project requirements for all the modules:

1. HOSTEL_DB

Sl. No.	Entity Names Attributes	Data Type	Key/Non Key
1.	Hostel HostelName Hostel_Address Hostel_Phone Managed_By	 Varchar Varchar Int Varchar	Primary Key
2.	Students StudentID StudentName DOB Gender RoomNo HostelName DateOfJoining Purpose FatherName MobNo Phone	 Autoincrement Varchar Boolean Varchar Int Varchar Int Varchar Varchar Int Int	Primary Key
3.	Room HostelName RoomNo RoomType NoOfBeds BedsAvailable	 Varchar Int Varchar Int Int	Primary Key
4.	CheckOut ID StudentID StudentName RoomNo CheckOutDate	 Autoincrement Varchar Varchar Int Int	Primary Key
5.	Checkout_History ID StudentID StudentName RoomNo CheckOutDate	 Varchar Autoincrement Varchar Int Int	Primary Key

6.	DueDate ID StudentID DueDate	 Autoincrement Autoincrement Int	 Primary Key
7.	ExtraServices ID StudentID ServiceDate Item Quantity UnitPrice TotalPrice	 Autoincrement Autoincrement Boolean Varchar Int Int Int	 Primary Key
8.	FeePayment FeePaymentID StudentID ServiceCharges ExtraCharges FeeMonth PaymentDate TotalPaid Fine DuePayment	 Autoincrement Autoincrement Int Int Varchar Boolean Int Int Int	 Primary Key
9.	PurchasedInventory ID ProductName Category TransactionType PartyName PurchaseDate Quantity Unit Price TotalPrice	 Int Varchar Varchar Varchar Varchar Int Int Int Int Int	 Primary Key
10.	Quotation QuotationID Hostelname StudentName ContactNo ChargesPerMonth1 NoOfMonth1 TotalCharges1 ChargesPerMonth2 NoOfMonth2 TotalCharges2 GrandTotal	 Autoincrement Varchar Varchar Int Int Int Int Int Int Int Int	 Primary Key

	QuotationDate	Int	
11.	RegCharges ReceiptNumber StudentID CautionMoney RentalCharges PaymentDate	 Auroincrement Autoincrement Int Int Int	Primary Key
12.	Registration Username Password Name ContactNo	 Varchar Varchar Varchar Int	Primary Key
13.	Services ID StudentID ServiceName ServiceCharges	 Int Varchar Varchar Int	Primary Key
14.	Trans ID Employee_Party_Name TransactionType TransactionDetails TransactionMonth TransactionDate TransactionAmount AmountReceived DueAmount	 Int Varchar Varchar Varchar Int Int Int Int Int	Primary Key
15.	Users Username Password	 Varchar Varchar	
16.	Voucher VoucherNo ReceiverName TransactionType ACNo Amount PaymentDate	 Autoincrement Varchar Varchar Int Int Int	Primary Key

11. Implementation of security mechanism at various levels:

The application requires an username and password to login and has facility to register other users too. It's beneficial if an hostel has different staffs working at multiple shifts. All of them require an user id and password which can be registered within this application.

12. Future scope and further enhancement of the project.

This project can be implemented with Crystal reports to generate various reports such as complete list of payment, students, etc history that are saved within this application to an printable exel file.

13. Bibliography

www.google.co.in

www.wikipedia.org

Fundamentals of Software Engineering by Rajib Mall