

ISD Lab Group 3 Project

Design submission for Room Management

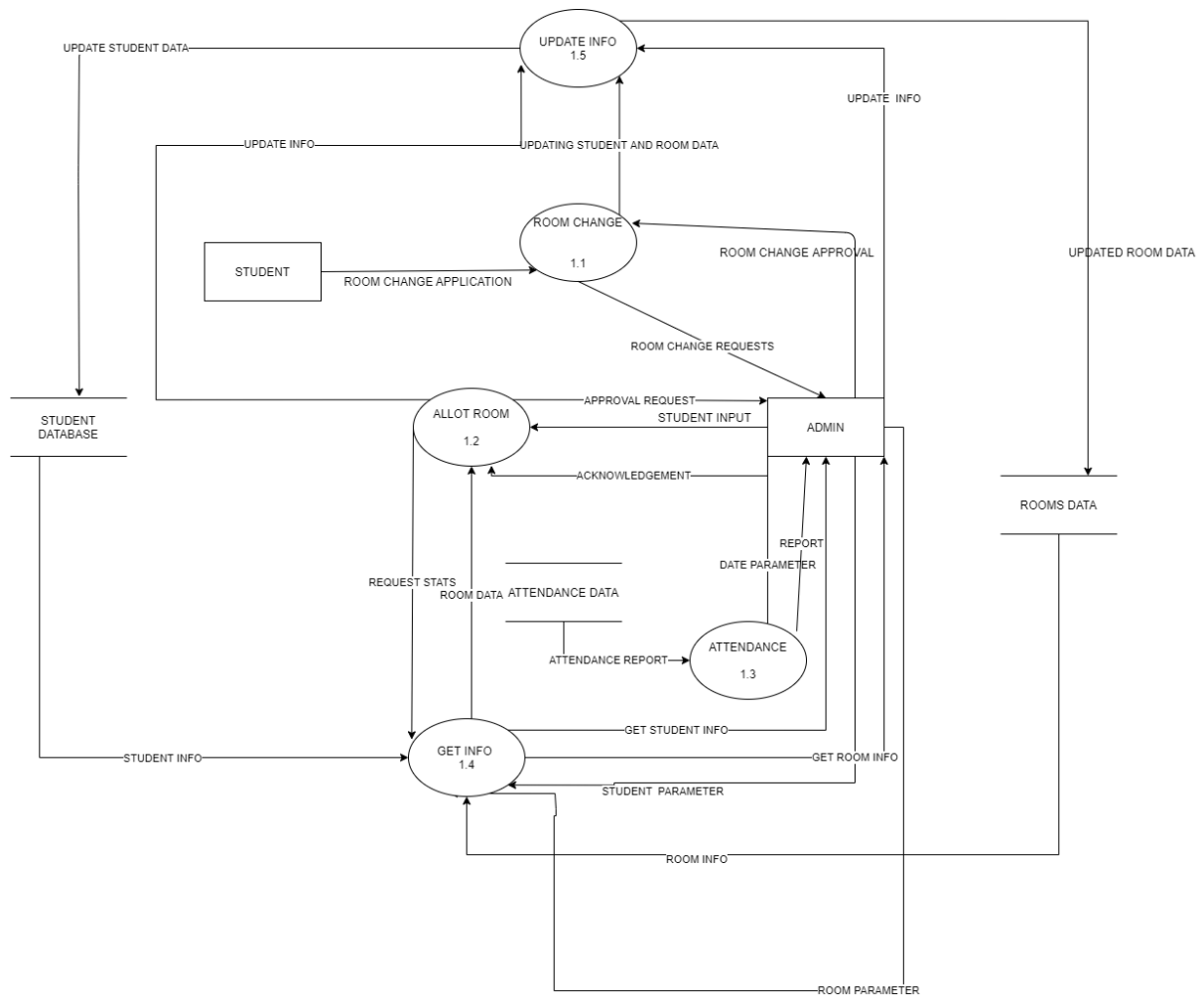
Created by

Rishabh Sahu	19ucs129
Bhavya Sehgal	19ucs155
Mayank Raj	19ucs151
Paawan singal	19ucs153
Siddhant Gupta	19ucs106
Abhishek singhal	19ucs127
Akshit Sethi	19ucs104
Warul Sinha	19ucs119
Tanay Makharia	19ucs122
Manan Pulinkumar Gandhi	19ucs130
Kush Gandhi	19ucs131
Jhanvi Thakuria	19ucs132

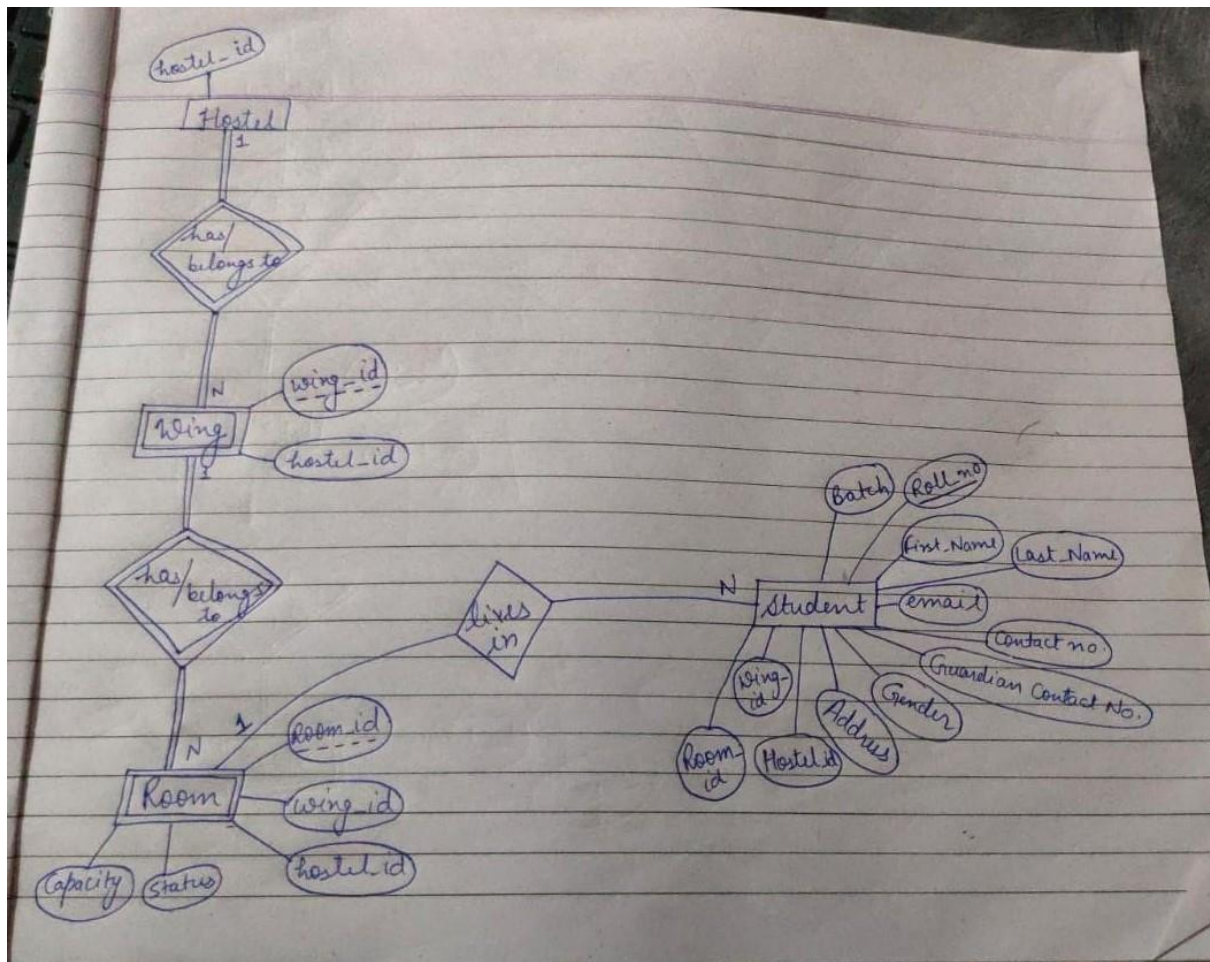
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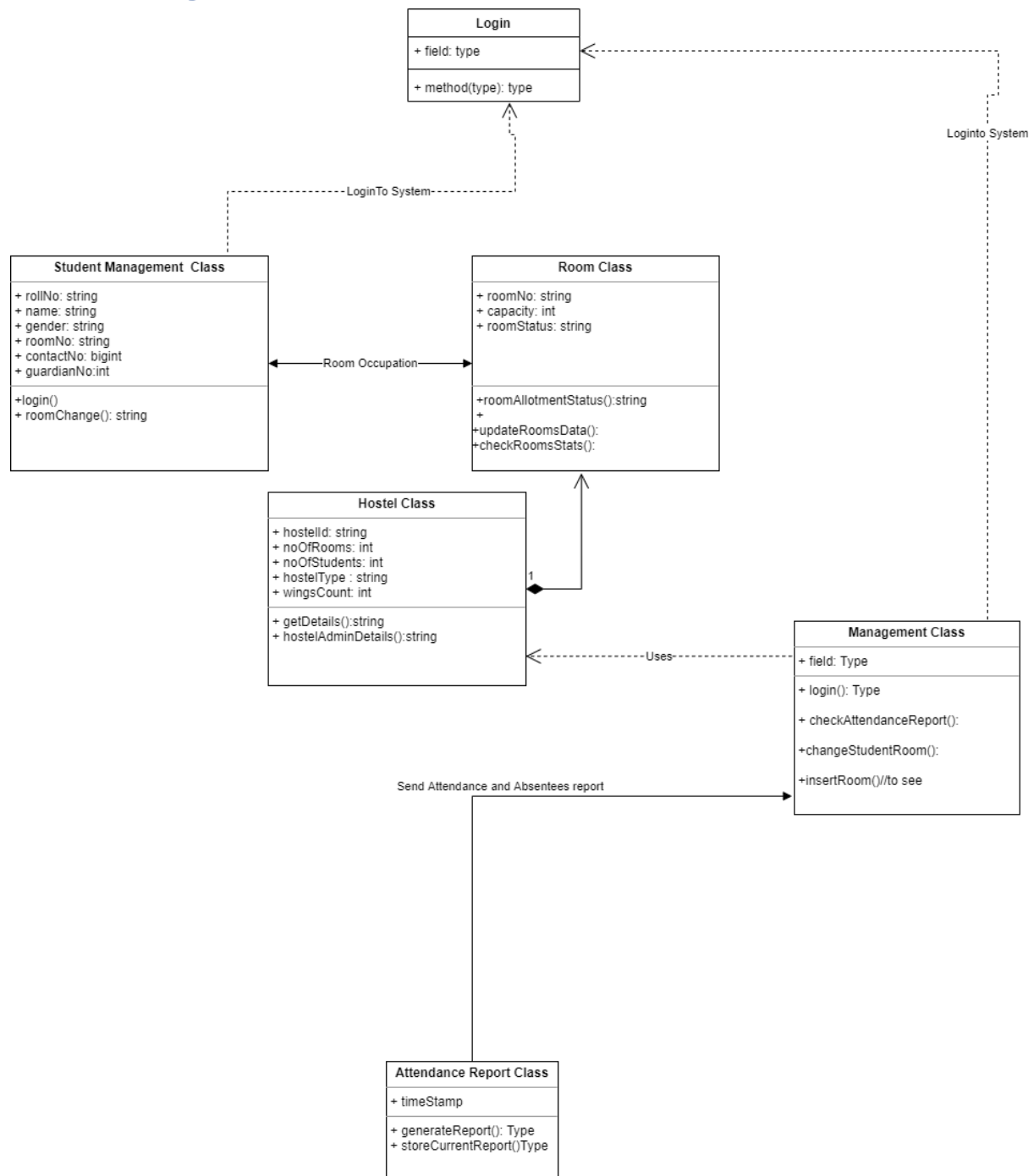
DFD



ERD



Class diagram



Database Schema:

HOSTEL :

1NF, 2NF, 3NF

hostel_id(varchar(3))	no_of_wings(int)	warden(varchar(20))

PK : hostel_id(varchar(3))

Note: considering only one warden per hostel (as per college id associated)

WING :

1NF, 2NF, 3NF

wing_id(char(1))	hostel_id(varchar(3))	no_of_rooms(int)

PK : wing_id(char(1)), hostel_id (composite primary key)(varchar(3))

FK : hostel_id(varchar(3))

ROOM :

1NF, 2NF, 3NF

room_id(char(3))	wing_id(char(1))	hostel_id(varchar(3))	floor_no(int)	capacity(int)	occupancy(int)

PK : room_id(char(3)), wing_id(char(1)), hostel_id(varchar(3)) (composite primary key)

FK : wing_id(char(1)), hostel_id(varchar(3))

STUDENTS :

1NF, 2NF, 3NF

Roll_no (char(8))	f_name(v arch ar(20)	l_name(v arch ar(20)	colle ge_e mail(varc har(2 1))	cont act_ no(c har(1 0))	guar dian _con tact(char(10))	Gen der(c har(1)	Hom e_Ad dres s(var char(50))	room _id(c har(3)	wing _id(c har(1)	host el_id (varc har(3)	floor _no(i nt)

PK : roll_no(char(8))

FK : room_id(char(3)), wing_id(char(1)), hostel_id(varchar(3))

Note: Only single contact_no, guardian_contact will be associated per student(roll no)

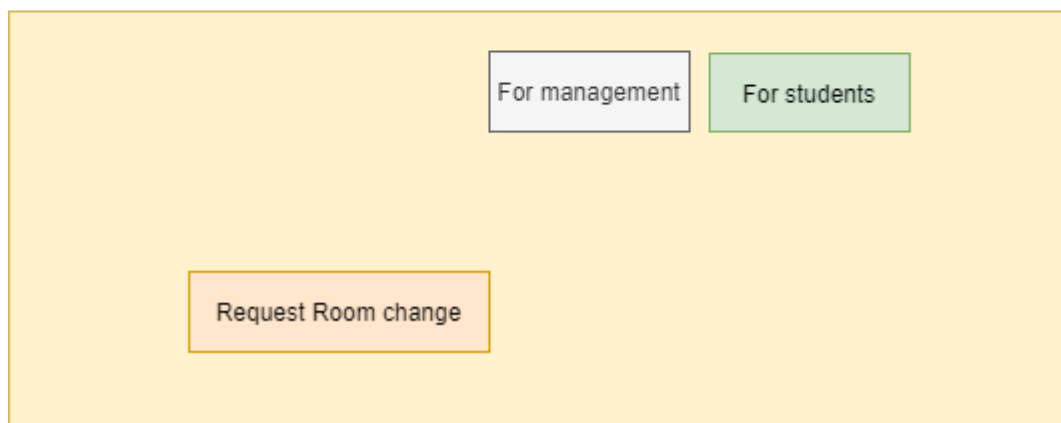
ATTENDANCE :

1NF, 2NF, 3NF

datetime(DATETIME)	report.pdf(BLOB)

PK : datetime(composite primary key)

MENU DESIGN



GUI DESIGN

ROOM CHANGE GUI

Enter your roll number

Enter name

Enter contact number

Type preference and reasons related to change

Submit application

Undo last request
(time limit 1 hr)

DISPLAY /SAVE ATTENDANCE REPORT

Attendance data Management

Mon Nov 15 2021 10:23:07

Download today's summary report

Note that today's report is only available for download between 11 pm to 12 noon

Display today's summary

Store today's summary

View past summary

Summary includes List of absentees and late arriving students

Choose date to view past summary
(dd/mm/yyyy)format

display

Absentees Report			
Student Id	Student name	Contact Number	Date

Late Students Report			
Student Id	Student name	Contact number	Arrival time

GET ROOM INFO

Enter Room Number

Get Details

Status:

Occupation
status

Occupant 1 Name
and Roll Number :

(Name
and Roll
number)

Occupant 2 Name
and Roll Number(if
applicable) :

(Name
and Roll
number)

Any other important
comments regarding the
room

(Related
comments)

GET HOSTEL INFO

Choose Hostel
(Drop down menu)

Get Details

Status:

Activity status (functioning /inactive)

Number of
residents

count

Number of residents
present currently

count

Other info

(Related
comments)

GET STUDENT DETAILS

Enter Roll Number

Or

Enter Name

Get Details

Report in
tabular
format

Roll number	Name	Contact number	Occupied Room (Room number of Nil)

UPDATE STUDENT DATA

Update
Student
info

Student's current roll
number

New Roll
number

☐

New
contact
number

☐

Confirm

Get details of today's
updates

REALLOCATE ROOM

Enter Student Details

Roll Number

Contact number

Confirming student Details

(Display message containing student details like name and batch and present room details to confirm before reallocation)

New Room to allot
(Hostel,Wing,FloorNumber format)

(Display success ,or failure message with the data)

Save

Confirm

Enter Next

Close

For
reallocating
rooms to
students

ALLOT ROOMS

Enter Student Details

Name

Roll Number

Allocate Room (Hostel,Wing,
,Number format)

BH1

C

223

Generate Random
Room Number

Choose room type(single
/doubleseater) for random
allotment drop down list

(Display success ,or failure message with the
data)

Save

Undo Last
Room Allotment

Enter Next

Close

For
allocating
rooms to
students