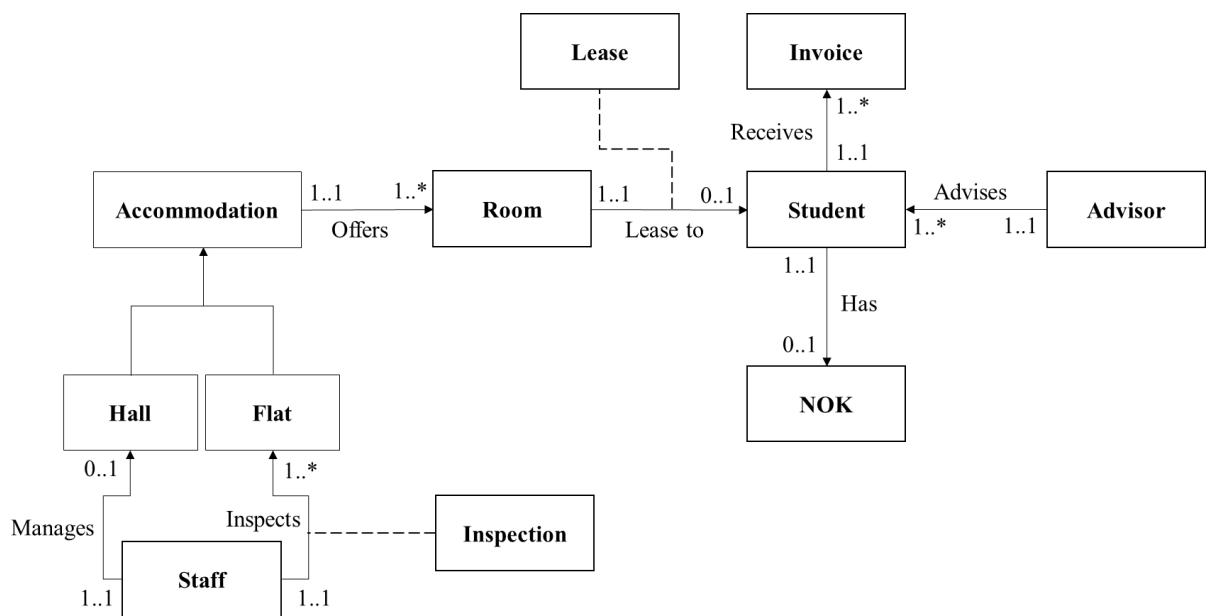


Graduate Student Project

ER diagram

Assumptions:

- A member of staff can manage zero or one Hall of residence.
- A member of staff can inspect one or more apartments, but one apartment only inspected by one staff at specific date.
- Only information of one of a student's next-of-kin is recorded.
- An advisor can supervise multiple students.



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Relation Model

Student (bannerNo, fName, lName, street, city, postcode, sphoneNo, email, dateofBirth, gender, category, nationality, specialNeeds, additionalComment, status, major, minor)

Primary Key: bannerNo Foreign Key: advisorNo		
Attributes	Mandatory / Optional	Constraint
bannerNo	Mandatory	NOT NULL
fName	Mandatory	
lName	Mandatory	
street	Mandatory	
city	Mandatory	
postcode	Mandatory	
sphoneNo	Mandatory	
email	Mandatory	
dateofBirth	Mandatory	
gender	Mandatory	VALUE IN ('Female', 'Male')
category	Mandatory	
nationality	Mandatory	
specialNeeds	Optional	
additionalComment	Optional	
status	Mandatory	VALUE IN ('placed', 'waiting')
major	Mandatory	
minor	Mandatory	
advisorNo	Mandatory	NOT NULL

Advisor (advisorNo, aName, aposition, department, aphoneNo, email, aroomNo, bannerNo)

Primary Key: advisorNo		
Attributes	Mandatory / Optional	Constraint
advisorNo	Mandatory	NOT NULL
aName	Mandatory	
aposition	Mandatory	
department	Mandatory	
aphoneNo	Mandatory	
email	Mandatory	
aroomNo	Mandatory	

Hall (hallNo, hName, hAddress, hphoneNo, hManager, residenceNo)

Primary Key: hallNo Foreign Key: residenceNo, staffNo		
Attributes	Mandatory / Optional	Constraint
hallNo	Mandatory	NOT NULL
hName	Mandatory	
hAddress	Mandatory	
hphoneNo	Mandatory	
staffNo	Mandatory	NOT NULL
residenceNo	Mandatory	NOT NULL

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Flat (flatNo, fAddress, numRoom, fManager, residenceNo)

Primary Key: flatNo Foreign Key: residenceNo		
Attributes	Mandatory / Optional	Constraint
flatNo	Mandatory	NOT NULL
fAddress	Mandatory	
numRoom	Mandatory	
residenceNo	Mandatory	NOT NULL

Room (placeNo, rentRate, roomNo, residenceNo)

Primary Key: placeNo Foreign Key: residenceNo		
Attributes	Mandatory / Optional	Constraint
placeNo	Mandatory	NOT NULL
roomNo	Mandatory	NOT NULL
rentRate	Mandatory	
residenceNo	Mandatory	NOT NULL

Lease (leaseNo, duration, bannerNo, placeNo, address, dateFrom, dateTo)

Primary Key: leaseNo Foreign Key: bannerNo, placeNo		
Attributes	Mandatory / Optional	Constraint
leaseNo	Mandatory	NOT NULL
duration	Mandatory	VALUE BETWEEN 1 AND 3
bannerNo	Mandatory	NOT NULL
placeNo	Mandatory	NOT NULL
dateFrom	Mandatory	
dateTo	Optional	

Invoice (invoiceNo, leaseNo, semester, paymentDue, bannerNo, placeNo, address, payDate, payMethod, firstReminderDate, secondReminderDate)

Primary Key: invoiceNo Foreign Key: leaseNo, bannerNo, placeNo		
Attributes	Mandatory / Optional	Constraint
invoiceNo	Mandatory	NOT NULL
semester	Mandatory	VALUE IN ('Fall', 'Spring', 'Summer')
paymentDue	Mandatory	
bannerNo	Mandatory	NOT NULL
placeNo	Mandatory	NOT NULL
payDate	Optional	
payMethod	Optional	
firstReminderDate	Optional	
secondReminderDate	Optional	
leaseNo	Mandatory	NOT NULL

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Staff (staffNo, fName, lName, email, street, city, postcode, dateofBirth, gender, sposition, location)

Primary Key: staffNo		
Attributes	Mandatory / Optional	Constraint
staffNo	Mandatory	NOT NULL
fName	Mandatory	
lName	Mandatory	
email	Mandatory	
street	Mandatory	
city	Mandatory	
postcode	Mandatory	
dateofBirth	Mandatory	
gender	Mandatory	VALUE IN ('Female', 'Male')
sposition	Mandatory	
location	Mandatory	

Insepection (flatNo, dateofInspection, staffNo, condi, additionalComment)

Primary Key: flatNo, dateofInspection Foreign Key: flatNo		
Attributes	Mandatory / Optional	Constraint
staffNo	Mandatory	NOT NULL
dateofInspection	Mandatory	
condi	Mandatory	VALUE IN ('yes', 'no')
additionComment	Optional	
flatNo	Mandatory	NOT NULL

NOK (kinNo, kName, relationship, street, city, postcode, kphoneNo, bannerNo)

Primary Key: kinNo Foreign Key: bannerNo		
Attributes	Mandatory / Optional	Constraint
kinNo	Mandatory	NOT NULL
kName	Mandatory	
relationship	Mandatory	
street	Mandatory	
city	Mandatory	
postcode	Mandatory	
kphoneNo	Mandatory	
bannerNo	Mandatory	NOT NULL