

## Entity-Relationship Diagram Assumptions:

- Each Lease can receive multiple Invoices over the course of its duration
- Multiple payments can be made for each Invoice
- Each Student can have multiple Next-of-Kin
- Advisor of Studies is not part of the University Accommodation Office Staff
- Each Advisor of Studies can advise multiple students
- Each Student has a single Advisor of Studies
- Each Student can sign multiple Leases over the course of their time at the university
- Each Course can contain multiple Students
- Each Room can have multiple Leases refer to it
- Each Accommodation option contains one or more Rooms
- Room number, place number, and rent have similar format across Flat rooms and Residence Hall rooms
- There are no Accommodation options other than Flats and Residence Halls
- Multiple Inspections can be performed on each Flat
- Each Hall Manager staff member can manage more than one Hall
- Each member of Office Staff can conduct multiple Inspections
- On each Lease, the date the Student wishes to enter/leave is not necessarily the same as the Lease start/end date, so it is not redundant to list that along with the lease duration
- People in the same Position can work in different Locations (so Location is not functionally dependent on Position)
- Courses can have the same name and still be in different Departments (e.g. "Research Methods")
- Identical Positions can exist in multiple advising departments (e.g. "career counselor"), so Department is not functionally dependent on Position
- A rentRate field is included in Lease, even though rentRate is already in the FlatRoom and HallRoom entities. While a JOIN can be used to determine current rentRate, storing rentRate in the Lease lets us determine rentRate at the time of a Student's specific Lease, in case Lease rentRate changes

## PART 2: RELATIONAL MODEL

<b>Student</b> <u>matriculationNo {PK}</u> FK advisorNo REFERENCES AdvisorOfStudies (advisorNo) FK courseNo REFERENCES course (courseNo) firstName, lastName, streetAddress, cityAddress, postcodeAddress, dateOfBirth, sex, studentCategory, nationality, smoker, specialNeeds, additionalComments, currentStatus	<b>Lease</b> <u>leaseNo {PK}</u> FK flatPlaceNo REFERENCES FlatRoom(placeNo) FK hallPlaceNo REFERENCES HallRoom(placeNo) FK stuMatriculationNo REFERENCES Student(matriculationNo) rentRate, year, leaseDuration, entryDate, leaveDate
<b>AdvisorOfStudies</b> <u>advisorNo {PK}</u> firstName, lastName, position, department, telNo, roomNumber	<b>Payment</b> <u>paymentNo {PK}</u> FK invoiceNo REFERENCES Invoice(invoiceNo) amount, invoicePayDate, paymentMethod, firstReminderDate, secondReminderDate
<b>HallOfResidence</b> <u>hallNo {PK}</u> FK managerNo REFERENCES OfficeStaff(staffNo), hallName, streetAddress, cityAddress, postcodeAddress, telNo	<b>Inspection</b> <u>inspectionNo {PK}</u> FK flatNo REFERENCES Flat(flatNo) FK inspectorNo REFERENCES Staff(staffNo) inspectionDate, satisfactionCondition, comments
<b>HallRoom</b> <u>placeNo {PK}</u> FK hallNo REFERENCES HallOfResidence(hallNo) roomNo, rentRate	<b>Staff</b> <u>staffNo {PK}</u> firstName, lastName, streetAddress, cityAddress, postcodeAddress, dateOfBirth, sex, position, location
<b>Flat</b> <u>flatNo {PK}</u> streetAddress, cityAddress, postcodeAddress, roomsAvailable	<b>Course</b> <u>courseNo {PK}</u> courseTitle, courseYear, courseLeader, telNo, roomNo, deptName
<b>FlatRoom</b> <u>placeNo {PK}</u> FK flatNo REFERENCES Flat(FlatNo) roomNo, rentRate	<b>NextOfKin</b> <u>kinNo {PK}</u> FK studentNo REFERENCES Student(matriculationNo) firstName, lastName, relationship, streetAddress, cityAddress, postcodeAddress, telNo
	<b>Invoice</b> <u>invoiceNo {PK}</u> FK leaseNo REFERENCES Lease(leaseNo), semester, paymentDue