

DATABASE CONCEPT

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NELSON MARLBOROUGH INSTITUTE OF TECHNOLOGY DAT-502

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DAT502 Assignment 2

Semester 2 2017

Student Name: Muhammad Ashkar Yousuf Milton

1 Physical Design



1.1 Design Decisions / Assumptions Made

- Inspection

“**InspectionNo**” is added as the Primary Key, because the Inspection table has repeating information. It is there so that it has unique number to identify. This unique identifier will prevent any clash with the repeating inspection dates set by any employee.

- EmployeeID is being used instead of EmployeeNo
- EmpMobileNo is also added because people nowadays have access to mobile phones instead of home phone.

- Reminder

“**ReminderNo**” is used as a primary key in Reminder because it is easier to find the number and to ensure data in the specific column is unique.

- I added EmpNationality in the Employee table because lot of Employee came from oversees.

- Hall

“**HallNo**” is used as a Primary Key in the Hall table instead of HallName, because the Hall table has repeating information. It is there so that it has unique number to identify. This unique identifier will prevent any clash with the repeating hall number that has been set up.

- Reminder

“**ReminderNo**” is used as a Primary Key in Reminder Table instead of InvoiceNo, because the Reminder table has repeating information. It is there so that it has unique number to identify. This unique identifier will prevent any clash with the repeating reminder number that has been set up.

1.2 Data Dictionary and Database size

- Employee

Table Name	Field	Data Type	Size	Constraints	Validation Rules	Default Value	Nulls	Key?	Reference Entry
Employee	EmployeeID	Auto Number	4			-	No	PK	-
	EmpFirstName	Short Text	50	“a-z; A-Z”		-	No	-	-
	EmpLastName	Short Text	50	“a-z; A-Z”		-	No	-	-
	EmpStreet	Short Text	50			-	No	-	-
	EmpCity	Short Text	50			-	No	-	-
	EmpPostCode	Integer	10			-	Yes	-	-
	WorkTelephoneExt	Integer	30			-	No	-	-
	EmpMobileNo	Integer	30			-	No	-	-
	EmpEmail	Short Text	50			-	No	-	-
	IRDNo	Integer	10			-	No	-	-
	Gender	Short Text	10	“M”, “F”, “O”		-	No	-	-
	DateStarted	Date Time	8	DD-MM-YYYY		-	No	-	-
	Position	Short Text	20			-	No	-	-
	Salary	Short Text	30			-	No	-	-
	EmpNationality	Short Text	20			-	No	-	-
Total Bytes				422					
Employee	Total Bytes								
10	4220								

- Hall

Table Name	Field	Data Type	Size	Constraints	Validation Rules	Default Value	Nulls	Key?	Reference Entry
Hall	HallNo	Auto Number	4		-	No	PK	-	
	HallName	Short Text	20		"a-z; A-Z"	-	No	-	-
	HallTelphoneNo	Integer	20		-	No	-	-	
	HallNoRoom	Integer	10		-	No	-	-	
	ManagerEmployeeID	Integer	4		-	No	FK	Employee	
Total Bytes				58					
Hall	Total Bytes								
5	290								

- Room

Table Name	Field	Data Type	Size	Constraints	Validation Rules	Default Value	Nulls	Key?	Reference Entry
Room	PlaceNo	Auto Number	4		-	No	PK	-	
	RoomNo	Short Text	10		"0-9"	-	No	-	-
	RentPerSemester	Short Text	10		-	No	-	-	
	ApartNo	Integer	10		-	No	FK	Apartmen	
	HallName	Short Text	10		-	No	FK	Hall	
Total Bytes				44					
Room	Total Bytes								
25	1100								

- Apartment

Table Name	Field	Data Type	Size	Constraints	Validation Rules	Default Value	Nulls	Key?	Reference Entry
Apartment	ApartNo	Auto Number	4		-	No	PK	-	
	ApartAddress	Short Text	50		"a-z, A-Z"	-	No	-	-
	ApartNoRooms	Short Text	10		-	No	-	-	
	Total Bytes			64					
	Apartment	Total Bytes							
5	320								

- Inspection

Table Name	Field	Data Type	Size	Constraints	Validation Rules	Default Value	Nulls	Key?	Reference Entry
Inspection	DateInspected	Date Time	8		DD-MM-YYYY	-	No	PK	-
	ApartNo	Integer	4		"0-9"	-	No	PK	Apartment
	Comments	Short Text	250		-	Yes	-	-	
	Status	Integer	250		-	No	-	-	
	EmployeeID	Integer	4		-	No	FK	Employee	
Total Bytes				516					
Inspection	Total Bytes								
16	8256								

- Invoice

Table Name	Field	Data Type	Size	Constraints	Validation Rules	Default Value	Nulls	Key?	Reference Entry
Invoice	InvoiceNo	Auto Number	4		-	No	PK	-	
	Semester	Short Text	20		"a-z; A-Z"	-	No	-	-
	DateDue	Date Time	8		DD-MM-YYYY	-	No	-	-
	DatePaid	Date Time	8		DD-MM-YYYY	-			
	LeaseNo	Integer	4		-	No	FK	Lease	
	PaymentMethodNo	Integer	4		-	No	FK	Payment Method	
Total Bytes			48						
Invoice	Total Bytes								
34	1632								

- Lease

Table Name	Field	Data Type	Size	Constraints	Validation Rules	Default Value	Nulls	Key?	Reference Entry
Lease	LeaseNo	Auto Number	4		-	No	PK	-	
	Duration	Short Text	20		"a-z; A-Z"	-	No	-	-
	DateStart	Date Time	8		DD-MM-YYYY	-	No	-	-
	DateLeave	Date Time	8		DD-MM-YYYY	-	No		
	PlaceNo	Integer	4		-	No	FK	Room	
	StudentNo	Integer	4		-	No	FK	Student	
Total Bytes			48						
Lease	Total Bytes								
20	960								

- Reminder

Table Name	Field	Data Type	Size	Constraints	Validation Rules	Default Value	Nulls	Key?	Reference Entry
Reminder	InvoiceNo	Auto Number	4		-	No	PK	Invoice	
	DateReminder1	Short Text	20		DD-MM-YYYY	-	No	-	-
	DateReminder2	Date Time	8		DD-MM-YYYY	-	No	-	-
	Comments	Date Time	8		-	Yes	-	-	
	DateInterview	Integer	4		-	No	-	-	
	Total Bytes		44						
Reminder	Total Bytes								
5	220								

- Student

Table Name	Field	Data Type	Size	Constraints	Validation Rules	Default Value	Nulls	Key?	Reference Entry
Student	StudentNo	Auto Number	4			-	No	PK	-
	StudentFirstName	Short Text	50		"a-z; A-Z"	-	No	-	-
	StudentLastName	Short Text	50		"a-z; A-Z"	-	No	-	-
	StudentStreet	Short Text	50			-	No	-	-
	StudentCity	Short Text	50			-	No	-	-
	StudentPostAddress	Short Text	50			-	No	-	-
	StudentHomeTelNo	Integer	30			-	Yes	-	-
	StudentMobileNo	Integer	30			-	No	-	-
	StudentGender	Short Text	50		"M", "F", "O"	-	Yes	-	-
	StudentDOB	Integer	10		DD-MM-YES	-	No	-	-
	StudentNationality	Short Text	10			-	No	-	-
	AccomodationTypeRequest	Short Text	50			-	No	-	-
	AccomodationDuration	Short Text	20			-	No	-	**
Total Bytes				454					
Student	Total Bytes								
25	11350								

- Payment Method

Table Name	Field	Data Type	Size	Constraints	Validation Rules	Default Value	Nulls	Key?	Reference Entry
Payment Method	PaymentMethodNo	Auto Number	4			-	No	PK	-
	PaymentMethod	Short Text	30		"a-z, A-Z"	-	No	-	-
Total Bytes				34					
Payment Method	Total Bytes								
3	102								

- Database Size

Table	Average Record Bytes	Estimated Number	Total Bytes
Employee	422	10	4220
Inspection	516	16	8256
Hall	58	5	290
Room	44	25	1100
Apartment	64	5	320
PaymentMethod	34	3	102
Invoice	48	34	1632
Lease	48	20	960
Reminder	44	5	220
Student	454	25	11350
Total	1732	148	28450

1.3 Database Creation Script

- Query of Students

```
CREATE TABLE Student
(StudentNo AUTOINCREMENT PRIMARY KEY,
StudentFirstName varchar(50) NOT NULL,
StudentLastName varchar(50) NOT NULL,
StudentStreet varchar (20) NOT NULL,
StudentCity varchar (20) NOT NULL,
StudentPostAddress varchar(50) NOT NULL,
StudentHomeTelNo int NOT NULL,
StudentGender varchar(10) NOT NULL,
StudentDOB datetime NOT NULL,
StudentNationlaity varchar(30) NOT NULL,
AccomodationTypeRequest varchar(30) NOT NULL,
AccomodationDuration varchar(30));
```

- Query of Inspection

```
CREATE TABLE Inspection
(InspectionNo AUTOINCREMENT PRIMARY KEY,
ApartNo int NOT NULL,
DateInspected datetime NOT NULL,
Comments varchar(255),
Status varchar(255),
EmployeeID int NOT NULL,
FOREIGN KEY (EmployeeID) REFERENCES Employee(EmployeeID),
FOREIGN KEY (ApartNo) REFERENCES Apartment(ApartNo));
```

- Query of Hall

```
CREATE TABLE Hall  
(HallNo AUTOINCREMENT PRIMARY KEY,  
HallName varchar(30) NOT NULL,  
HallTelephoneNo varchar(20) NOT NULL,  
HallNoRoom int NOT NULL,  
ManagerEmpID int NOT NULL,  
FOREIGN KEY (ManagerEmpID) REFERENCES Employee(EmployeeID));
```

- Query of Room

```
CREATE TABLE Room  
(PlaceNo AUTOINCREMENT PRIMARY KEY,  
RoomNo int NOT NULL,  
RentPerSemester varchar(30) NOT NULL,  
ApartNo int NOT NULL,  
HallNo int NOT NULL,  
FOREIGN KEY (ApartNo) REFERENCES Apartment(ApartNo),  
FOREIGN KEY (HallNo) REFERENCES Hall(HallNo));
```

- Query of Apartment

```
CREATE TABLE Apartment  
(ApartNo AUTOINCREMENT PRIMARY KEY,  
ApartmentAddress varchar(50),  
ApartNoRooms int);
```

- Query of Payment Method

```
CREATE TABLE PaymentMethod  
(PaymentMethodNo AUTOINCREMENT PRIMARY KEY,  
PaymentMethod varchar(20));
```

- Query of Invoice

```
CREATE TABLE Invoice  
(InvoiceNo AUTOINCREMENT PRIMARY KEY,  
Semester varchar(20) NOT NULL,  
DateDue datetime NOT NULL,  
DatePaid datetime NOT NULL,  
LeaseNo int NOT NULL,  
PaymentMethodNo int NOT NULL,  
FOREIGN KEY (LeaseNo) REFERENCES Lease(LeaseNo),  
FOREIGN KEY (PaymentMethodNo) REFERENCES  
PaymentMethod(PaymentMethodNo);
```

- Query of Lease

```
CREATE TABLE Lease  
(LeaseNo AUTOINCREMENT PRIMARY KEY,  
Duration varchar(20) NOT NULL,  
DateStart datetime NOT NULL,  
DateLeave datetime NOT NULL,  
PlaceNo int NOT NULL,  
StudentNo int NOT NULL,  
FOREIGN KEY (StudentNo) REFERENCES Student(StudentNo),  
FOREIGN KEY (PlaceNo) REFERENCES Room(PlaceNo));
```

- Query of Reminder

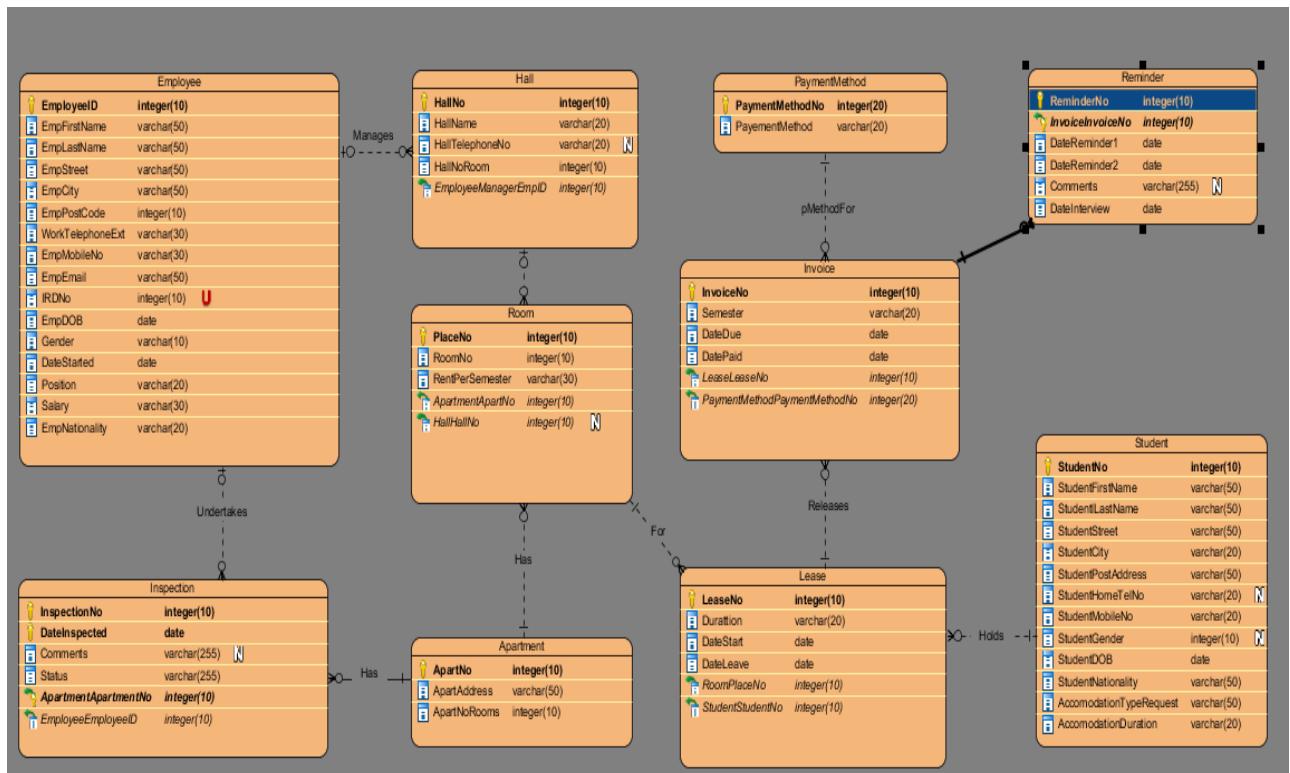
```
CREATE TABLE Reminder  
(ReminderNo AUTOINCREMENT PRIMARY KEY,  
InvoiceNo integer,  
DateReminder1 datetime NOT NULL,  
DateReminder2 datetime NOT NULL,
```

```
Comments varchar(255),  
DateInterview datetime NOT NULL,  
FOREIGN KEY (InvoiceNo) REFERENCES Invoice(InvoiceNo));
```

- Query of Employee

```
CREATE TABLE Employee  
(EmployeeID AUTOINCREMENT PRIMARY KEY,  
EmpFirstName varchar(50) NOT NULL,  
EmpLastName varchar(50) NOT NULL,  
EmpStreet varchar(50) NOT NULL,  
EmpCity varchar(25) NOT NULL,  
EmpPostCode int NOT NULL,  
WorkTelephoneExt varchar(20) NOT NULL,  
EmpMobileNo varchar(30) NOT NULL,  
EmpEmail varchar(30) NOT NULL,  
IRDNo int NOT NULL,  
EmpDOB datetime NOT NULL,  
Gender varchar(10) NOT NULL,  
DateStarted datetime NOT NULL,  
Position varchar(20) NOT NULL,  
Salary varchar(20) NOT NULL,  
EmpNationality varchar(20) NOT NULL);
```

2 Database Build



3 Data Entry Form

Data Entry Form for Employee

EmployeeID	<input type="text"/>	[Add New]	<input type="button"/>
EmpFirstName	<input type="text"/> Unbound		
EmpLastName	<input type="text"/> EmpLastName		
EmpStreet	<input type="text"/> EmpStreet		
EmpCity	<input type="text"/> EmpCity		
EmpPostCode	<input type="text"/> EmpPostCode		
WorkTelephoneExt	<input type="text"/> WorkTelephoneExt		
EmpMobileNo	<input type="text"/> EmpMobileNo		
EmpEmail	<input type="text"/> EmpEmail		
IRDNo	<input type="text"/> IRDNo		
EmpDOB	<input type="text"/> EmpDOB		
Gender	<input type="text"/> Gender		
DateStarted	<input type="text"/> DateStarted		
Position	<input type="text"/> Position		
Salary	<input type="text"/> Salary		
EmpNationality	<input type="text"/> EmpNationality		

Employee Form

Add Record

Data Entry Form for Students

Data Entry Form for Students

StudentNo	<input type="text" value="1"/>
StudentFirstName	<input type="text" value="Andrew"/>
StudentLastName	<input type="text" value="#Name?"/>
StudentStreet	<input type="text" value="#Name?"/>
StudentCity	<input type="text" value="#Name?"/>
StudentPostAddress	<input type="text" value="#Name?"/>
StudentHomeTelNo	<input type="text" value="#Name?"/>
StudentGender	<input type="text" value="#Name?"/>
StudentDOB	<input type="text" value="#Name?"/>
StudentNationality	<input type="text" value="#Name?"/>
AccommodationTypeRequest	<input type="text" value="#Name?"/>
AccommodationDuration	<input type="text" value="#Name?"/>
<input type="button" value="Add Record"/>	

4 Test Data

4.1 SQL statements to load data

A. Apartment

- INSERT INTO Apartment (ApartmentAddress, ApartNoRooms)VALUES
(‘Sarjau Apartment, 235 Vincent Street, Nelson’, ‘ 1 ’);
- INSERT INTO Apartment (ApartmentAddress, ApartNoRooms)VALUES
(‘Nikau Apartment, 89 Nile Street, Nelson ‘, ‘ 2 ’);
- INSERT INTO Apartment (ApartmentAddress, ApartNoRooms)VALUES
(‘Lafayete Apartment, 23 Nile Street, Nelson ‘, ‘ 3 ’);
- INSERT INTO Apartment (ApartmentAddress, ApartNoRooms)VALUES
(‘Sarjau Apartment,15 Central Nelson, Nelson’, ‘4’);
- INSERT INTO Apartment (ApartmentAddress, ApartNoRooms)VALUES
(‘Vincent Apartment, 3 Ridgge Valley, Nelson ‘, ‘ 5 ’);

B. Hall

- INSERT INTO Hall (HallName, HallTelephoneNo, HallNoRoom, ManagerEmpID) VALUES ('Nikau Hall', '0223564601', '3', '1');
- INSERT INTO Hall (HallName, HallTelephoneNo, HallNoRoom, ManagerEmpID) VALUES ('Sarjau Hall', '0223546020', '2', '2');
- INSERT INTO Hall (HallName, HallTelephoneNo, HallNoRoom, ManagerEmpID) VALUES ('Lafayete Hall', '0154678880', '3', '1');
- INSERT INTO Hall (HallName, HallTelephoneNo, HallNoRoom, ManagerEmpID) VALUES ('Hijaku Hall', '0154478896', '2', '3');
- INSERT INTO Hall (HallName, HallTelephoneNo, HallNoRoom, ManagerEmpID) VALUES ('Nikkon Hall', '0225469990', '3', '2');

C. Inspection

- INSERT INTO Inspection (ApartNo, DateInspected, Comments, Status, EmployeeID) VALUES ('1', '1/1/2017', 'None', 'Excellent', '1');
- INSERT INTO Inspection (ApartNo, DateInspected, Comments, Status, EmployeeID) VALUES ('3', '1/1/2017', 'Punched a hole', 'Good', '3');
- INSERT INTO Inspection (ApartNo, DateInspected, Comments, Status, EmployeeID) VALUES ('2', '1/1/2017', 'Need Cleaning', 'Very Good', '4');
- INSERT INTO Inspection (ApartNo, DateInspected, Comments, Status, EmployeeID) VALUES ('5', '1/1/2017', 'Need Fixing', 'Excellent', '6');
- INSERT INTO Inspection (ApartNo, DateInspected, Comments, Status, EmployeeID) VALUES ('4', '1/1/2017', 'Needs Curtain', 'Good', '5');
- INSERT INTO Inspection (ApartNo, DateInspected, Comments, Status, EmployeeID) VALUES ('1', '6/1/2017', 'Needs Vaccuming', 'Poor', '7');

- INSERT INTO Inspection (ApartNo, DateInspected, Comments, Status, EmployeeID) VALUES ('4', '6/1/2017, 'Broke the toilet', 'Very Poor', '8');
- INSERT INTO Inspection (ApartNo, DateInspected, Comments, Status, EmployeeID) VALUES ('5', '6/1/2017, 'Needs Fixing and Cleaning', 'Good', '9');
- INSERT INTO Inspection (ApartNo, DateInspected, Comments, Status, EmployeeID) VALUES ('2', '6/1/2017, 'Needs Paint', 'Very Good', '2');
- INSERT INTO Inspection (ApartNo, DateInspected, Comments, Status, EmployeeID) VALUES ('3', '6/1/2017, 'Perfect', 'Good', '10');
- INSERT INTO Inspection (ApartNo, DateInspected, Comments, Status, EmployeeID) VALUES ('2', '6/1/2017, 'Perfect', 'Good', '2');
- INSERT INTO Inspection (ApartNo, DateInspected, Comments, Status, EmployeeID) VALUES ('4', '12/1/2017, 'Needs Plumber', 'Excellent', '4');
- INSERT INTO Inspection (ApartNo, DateInspected, Comments, Status, EmployeeID) VALUES ('3', '12/1/2017, 'Needs Fixing the tap', 'Good', '5');
- INSERT INTO Inspection (ApartNo, DateInspected, Comments, Status, EmployeeID) VALUES ('5', '12/1/2017, 'Needs Fixing', 'Excellent', '6');
- INSERT INTO Inspection (ApartNo, DateInspected, Comments, Status, EmployeeID) VALUES ('1', '12/1/2017, 'Nothing Needed', 'Excellent', '7');
- INSERT INTO Inspection (ApartNo, DateInspected, Comments, Status, EmployeeID) VALUES ('2', '12/1/2017, 'Needs Plaster', 'Good', '8');

D. Room

- INSERT INTO Room (RoomNo, RentPerSemester, HallNo) VALUES ('8', '\$2000', '1');

- INSERT INTO Room (RoomNo, RentPerSemester, HallNo) VALUES ('3', '\$1500', '2');
- INSERT INTO Room (RoomNo, RentPerSemester, ApartNo) VALUES ('4', '\$1800', '3');
- INSERT INTO Room (RoomNo, RentPerSemester, ApartNo) VALUES ('5', '\$1750', '4');
- INSERT INTO Room (RoomNo, RentPerSemester, ApartNo) VALUES ('7', '\$1600', '5');
- INSERT INTO Room (RoomNo, RentPerSemester, ApartNo) VALUES ('6', '\$2000', '1');
- INSERT INTO Room (RoomNo, RentPerSemester, ApartNo) VALUES ('5', '\$1500', '2');
- INSERT INTO Room (RoomNo, RentPerSemester, ApartNo) VALUES ('9', '\$1800', '3');
- INSERT INTO Room (RoomNo, RentPerSemester, ApartNo) VALUES ('1', '\$1750', '4');
- INSERT INTO Room (RoomNo, RentPerSemester, ApartNo) VALUES ('2', '\$1600', '5');
- INSERT INTO Room (RoomNo, RentPerSemester, ApartNo) VALUES ('3', '\$1500', '2');
- INSERT INTO Room (RoomNo, RentPerSemester, ApartNo) VALUES ('2', '\$1750', '4');
- INSERT INTO Room (RoomNo, RentPerSemester, HallNo)VALUES ('3', '\$1800', '1');

- INSERT INTO Room (RoomNo, RentPerSemester, HallNo)VALUES ('3', '\$1600', '2');
- INSERT INTO Room (RoomNo, RentPerSemester, HallNo)VALUES ('4', '\$1700', '3');
- INSERT INTO Room (RoomNo, RentPerSemester, HallNo)VALUES ('5', '\$1900', '4');
- INSERT INTO Room (RoomNo, RentPerSemester, HallNo)VALUES ('3', '\$2000', '5');
- INSERT INTO Room (RoomNo, RentPerSemester, HallNo)VALUES ('4', '\$1800', '1');
- INSERT INTO Room (RoomNo, RentPerSemester, HallNo)VALUES ('4', '\$1600', '2');
- INSERT INTO Room (RoomNo, RentPerSemester, HallNo)VALUES ('1', '\$1700', '3');
- INSERT INTO Room (RoomNo, RentPerSemester, HallNo)VALUES ('2', '\$1900', '4');
- INSERT INTO Room (RoomNo, RentPerSemester, HallNo)VALUES ('3', '\$2000', '5');
- INSERT INTO Room (RoomNo, RentPerSemester, HallNo)VALUES ('3', '\$1800', '1');
- INSERT INTO Room (RoomNo, RentPerSemester, HallNo)VALUES ('4', '\$1700', '3');
- INSERT INTO Room (RoomNo, RentPerSemester, HallNo)VALUES ('2', '\$2000', '5');

E. Lease

- INSERT INTO Lease (Duration, DateStart, DateLeave, StudentNo, PlaceNo)
VALUES ('1 Year', '10/3/2016', '10/3/2017', '1', '9');
- INSERT INTO Lease (Duration, DateStart, DateLeave, StudentNo, PlaceNo)
VALUES ('1 Year', '9/1/2017', '11/3/2017', '2', '3');
- INSERT INTO Lease (Duration, DateStart, DateLeave, StudentNo, PlaceNo)
VALUES ('6 Months', '10/9/2013', '12/21/2018', '3', '10');
- INSERT INTO Lease (Duration, DateStart, DateLeave, StudentNo, PlaceNo)
VALUES ('6 Months', '11/2/2016', '11/3/2017', '11', '11');
- INSERT INTO Lease (Duration, DateStart, DateLeave, StudentNo, PlaceNo)
VALUES ('1 Year', '9/2/2017', '11/4/2017', '5', '12');
- INSERT INTO Lease (Duration, DateStart, DateLeave, StudentNo, PlaceNo)
VALUES ('1 Year', '11/2/2017', '11/16/2017', '6', '2');
- INSERT INTO Lease (Duration, DateStart, DateLeave, StudentNo, PlaceNo)
VALUES ('1 Year', '11/4/2016', '11/23/2017', '7', '15');
- INSERT INTO Lease (Duration, DateStart, DateLeave, StudentNo, PlaceNo)
VALUES ('6 Months', '12/1/2016', '12/21/2017', '8', '8');
- INSERT INTO Lease (Duration, DateStart, DateLeave, StudentNo, PlaceNo)
VALUES ('6 Months', '7/18/2016', '8/8/2020', '10', '9');
- INSERT INTO Lease (Duration, DateStart, DateLeave, StudentNo, PlaceNo)
VALUES ('6 Months', '1/2/2018', '7/4/2018', '9', '5');
- INSERT INTO Lease (Duration, DateStart, DateLeave, StudentNo, PlaceNo)
VALUES ('1 Year', '1/5/2017', '12/11/2017', '12', '13');
- INSERT INTO Lease (Duration, DateStart, DateLeave, StudentNo, PlaceNo)
VALUES ('1 Year', '10/3/2016', '10/3/2017', '4', '8');

- INSERT INTO Lease (Duration, DateStart, DateLeave, StudentNo, PlaceNo)

VALUES ('6 Months', '6/13/2017', '12/13/2017', '13', '1');
- INSERT INTO Lease (Duration, DateStart, DateLeave, StudentNo, PlaceNo)

VALUES ('1 Year', '6/7/2016', '6/7/2017', '15', '4');
- INSERT INTO Lease (Duration, DateStart, DateLeave, StudentNo, PlaceNo)

VALUES ('6 Months', '5/9/2017', '11/7/2017', '17', '7');
- INSERT INTO Lease (Duration, DateStart, DateLeave, StudentNo, PlaceNo)

VALUES ('1 Year', '1/1/2016', '1/2/2017', '19', '17');
- INSERT INTO Lease (Duration, DateStart, DateLeave, StudentNo, PlaceNo)

VALUES ('1 Year', '11/11/2016', '11/11/2017', '21', '18');
- INSERT INTO Lease (Duration, DateStart, DateLeave, StudentNo, PlaceNo)

VALUES ('6 Months', '2/2/2017', '8/8/2017', '18', '16');
- INSERT INTO Lease (Duration, DateStart, DateLeave, StudentNo, PlaceNo)

VALUES ('1 Year', '2/4/2016', '2/5/2017', '22', '19');
- INSERT INTO Lease (Duration, DateStart, DateLeave, StudentNo, PlaceNo)

VALUES ('1 Year', '12/4/2016', '12/4/2017', '24', '20');

F. Lease

- INSERT INTO Reminder (InvoiceNo, DateReminder1, DateReminder2, Comments, DateInterview) VALUES ('1', '2/15/2016', '3/1/2016', 'Need to Pay the Rent on time', '3/3/2016');
- INSERT INTO Reminder (InvoiceNo, DateReminder1, DateReminder2, Comments, DateInterview) VALUES ('3', '10/20/2017', '11/24/2017', 'Needs talking', '11/28/2016');

- INSERT INTO Reminder (InvoiceNo, DateReminder1, DateReminder2, Comments, DateInterview) VALUES ('5', '9/5/2017', '9/13/2016', 'Need to Pay the Rent on time', '9/15/2017');
- INSERT INTO Reminder (InvoiceNo, DateReminder1, DateReminder2, Comments, DateInterview) VALUES ('7', '5/3/2017', '5/6/2017', 'Need to control noise', '5/8/2017');
- INSERT INTO Reminder (InvoiceNo, DateReminder1, DateReminder2, Comments, DateInterview) VALUES ('9', '11/10/2017', '11/20/2017', 'Needs Talking', '11/27/2017');

G. Payment Method

- INSERT INTO PaymentMethod (PaymentMethod) VALUES ('Cash');
- INSERT INTO PaymentMethod (PaymentMethod) VALUES ('Cash');
- INSERT INTO PaymentMethod (PaymentMethod) VALUES ('Cash');

H. Invoice

- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('1st Semester', '1/2/2017', '1/4/2017', '1', '1');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('2nd Semester', '6/15/2017', '6/17/2017', '1', '2');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('1st Semester', '1/1/2017', '1/3/2017', '2', '3');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('2nd Semester', '6/4/2017', '6/7/2017', '2', '1');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('1st Semester', '11/15/2017', '11/22/2017', '3', '2');

- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('1st Semester', '10/9/2017', '10/11/2017', '4', '3');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('1st Semester', '5/7/2017', '5/10/2017', '5', '1');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('2nd Semester', '11/22/2017', '11/29/2017', '5', '2');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('1st Semester', '5/17/2017', '5/23/2017', '6', '3');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('2nd Semester', '11/15/2016', '11/16/2016', '6', '1');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('1st Semester', '1/1/2017', '1/3/2017', '7', '2');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('2nd Semester', '7/3/2017', '7/6/2017', '7', '3');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('1st Semester', '2/2/2017', '2/5/2017', '8', '1');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('2nd Semester', '8/3/2017', '5/15/2017', '8', '2');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('1st Semester', '5/12/2017', '5/15/2017', '9', '3');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('2nd Semester', '11/15/2017', '11/19/2017', '9', '1');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('1st Semester', '11/16/2017', '11/18/2017', '10', '2');

- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('1st Semester', '11/17/2017', '11/19/2017', '11', '3');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('2nd Semester', '5/21/2017', '5/25/2017', '11', '1');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('1st Semester', '4/12/2017', '4/19/2017', '12', '2');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('2nd Semester', '10/2/2017', '10/6/2017', '12', '3');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('1st Semester', '11/2/2017', '11/5/2017', '13', '1');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('1st Semester', '9/8/2017', '9/9/2017', '14', '2');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('2nd Semester', '3/21/2017', '3/22/2017', '14', '3');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('1st Semester', '3/3/2017', '3/5/2017', '15', '1');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('1st Semester', '5/12/2017', '5/13/2017', '16', '2');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('2nd Semester', '11/12/2017', '11/13/2017', '16', '3');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('1st Semester', '4/27/2017', '4/28/2017', '17', '1');

- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('2nd Semester', '10/29/2017', '10/30/2017', '17', '2');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('1st Semester', '1/1/2017', '1/3/2017', '18', '3');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('1st Semester', '4/5/2017', '4/8/2017', '19', '1');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('2nd Semester', '10/16/2017', '10/18/2017', '19', '2');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('1st Semester', '2/2/2017', '2/5/2017', '20', '3');
- INSERT INTO Invoice (Semester, DateDue, DatePaid, LeaseNo, PaymentMethodNo) VALUES ('2nd Semester', '8/3/2017', '8/5/2017', '20', '1');

4.2 Evidence of Data Loaded

a. Apartment

The screenshot shows the Microsoft Access application interface. The ribbon is visible at the top with tabs like File, Home, Create, etc. The main area displays the 'Apartment' table in Datasheet view. The table has columns: ApartNo, ApartmentAddress, ApartNoRooms, and Click to Add. The data entries are:

ApartNo	ApartmentAddress	ApartNoRooms	Click to Add
1	Nikau Apartment, 89 Nile Street, Nelson	2	
2	2 Sarjau Apartment, 235 Vincent Street, Nelson	3	
3	3 Lafayette Apartment, 23 Nile Street, Nelson	2	
4	4 Sarjau Apartment, 15 Central Nelson, Nelson	3	
5	5 Vincent Apartment, 3 Ridgge Valley, Nelson	2	
*	(New)		

b. Hall

All Access Obj... <> Home Create External Data Database Tools Fields Table Tell me what you want to do

Views Clipboard

Tables Apartment Employee Hall Inspection Invoice Lease PaymentMethod Reminder Room Student

Queries Insert Apartment Insert Hall Insert Inspection Insert Invoice Insert Lease Insert Payment Method Insert Reminder Insert Room

Apartment Hall

HallNo HallName HallTelephoneNo HallNoRoom ManagerEmpID Click to Add

1 Nikau Hall 0223564601 3 1

2 Sarjau Hall 0223546020 2 2

3 Lafayette Hall 0154678880 3 1

4 Hijaku Hall 0154478896 2 3

5 Nikau Hall 0225469990 3 2

(New)

Datasheet View Record: 14 1 of 5 > No Filter Search Num Lock

c. Inspection

All Access Obj... <> Home Create External Data Database Tools Fields Table Tell me what you want to do

Views Clipboard

Tables Apartment Employee Hall Inspection Invoice Lease PaymentMethod Reminder Room Student

Queries Insert Apartment Insert Hall Insert Inspection Insert Invoice Insert Lease Insert Payment Method Insert Reminder Insert Room

Apartment Hall Inspection

InspectionNo ApartNo DateInspect Comments Status Emplo Click to Add

1 1 1/1/2017 None Excellent 1

2 3 1/1/2017 Punched a hole Good 3

3 2 1/1/2017 Need Cleaning Very Good 4

4 5 1/1/2017 Need Fixing Excellent 6

5 4 1/1/2017 Needs Curtain Good 5

6 1 6/1/2017 Need Vaccuming Poor 7

7 4 6/1/2017 Broke the toilet Poor 8

8 5 6/1/2017 Needs Fixing and Cleanin Good 9

9 2 6/1/2017 Needs Paint Very Good 2

10 3 6/1/2017 Perfect Good 10

11 2 6/1/2015 Perfect Good 2

12 4 12/1/2017 Needs Plumber Excellent 4

13 3 12/1/2017 Needs fixing the tap Good 5

14 5 12/1/2017 Needs Fixing Excellent 6

15 1 12/1/2017 Nothing needed Excellent 7

16 2 12/1/2017 Needs Plaster Good 8

(New)

d. Room

This screenshot shows the Microsoft Access interface with the 'Room' table selected. The table has columns: PlaceNo, RoomNo, RentPerSemester, ApartNo, HallNo, and Click to Add. The data includes various room numbers and their corresponding rent per semester.

PlaceNo	RoomNo	RentPerSemester	ApartNo	HallNo	Click to Add
1	8	\$2000	1		
2	3	\$1500	2		
3	4	\$1800	3		
4	5	\$1750	4		
5	7	\$1600	5		
6	6	\$2000	1		
7	5	\$1500	2		
8	9	\$1800	3		
9	1	\$1750	4		
10	2	\$1600	5		
11	3	\$1500	2		
12	2	\$1750	4		
13	3	\$1800	1		
14	3	\$1600	2		
15	4	\$1700	3		
16	5	\$1900	4		
17	3	\$2000	5		
18	4	\$1800	1		
19	4	\$1600	2		

e. Lease

This screenshot shows the Microsoft Access interface with the 'Lease' table selected. The table has columns: LeaseNo, Duration, DateStart, DateLeave, PlaceNo, StudentNo, and Click to Add. The data includes various lease durations and start/end dates.

LeaseNo	Duration	DateStart	DateLeave	PlaceNo	StudentNo	Click to Add
1	1 Year	10/3/2016	10/3/2017	1	9	
2	1 Year	9/1/2017	11/3/2017	2	3	
3	3 6 Months	10/9/2013	10/11/2018	3	10	
4	4 6 Months	11/2/2016	11/3/2017	11	11	
5	1 Year	9/2/2017	11/4/2017	5	12	
6	1 Year	11/2/2017	11/16/2017	6	2	
7	1 Year	11/4/2016	11/23/2021	7	15	
8	8 6 Months	12/1/2016	12/21/2020	8	8	
9	9 6 Months	7/18/2015	8/8/2017	10	9	
10	10 6 Months	1/2/2018	7/4/2018	9	5	
11	11 1 Year	1/5/2017	12/11/2017	12	13	
12	12 1 Year	10/3/2016	10/3/2017	4	8	
13	13 6 Months	6/13/2017	12/13/2017	13	1	
14	14 1 Year	6/7/2016	6/7/2017	15	4	
15	15 6 Months	5/9/2017	11/7/2017	17	7	
16	16 1 Year	1/1/2016	1/2/2017	19	17	
17	17 1 Year	11/11/2016	11/11/2017	21	18	
18	18 6 Months	2/2/2017	8/8/2016	18	16	
19	19 1 Year	2/4/2016	2/5/2017	22	19	

f. Reminder

This screenshot shows the Microsoft Access interface with the 'Reminder' table selected. The table has columns: ReminderNo, InvoiceNo, DateReminder1, DateReminder2, Comments, DateInterview, and Click to Add. The data includes various reminder details and dates.

ReminderNo	InvoiceNo	DateReminder1	DateReminder2	Comments	DateInterview	Click to Add
1	1	2/15/2016	3/1/2016	Need to Pay the Rent on time	3/3/2016	
2	3	10/20/2017	11/24/2017	Needs talking	11/28/2017	
3	5	9/5/2017	9/13/2017	Needs to pay Rent on time	9/15/2017	
4	7	5/3/2017	5/6/2017	Need to control noise	5/8/2017	
5	9	11/10/2017	11/20/2017	Needs Talking	11/27/2017	
*	(New)					

g. Payment Method

PaymentMethodNo	PaymentMethod	Click to Add
1	Debit	
2	Credit	
3	Cash	
	(New)	

h. Invoice

InvoiceNo	Semester	DateDue	DatePaid	LeaseNo	PaymentMethodNo	Click to Add
1	1st Semester	1/2/2017	1/4/2017	1	1	
2	2nd Semester	6/15/2017	6/17/2017	1	2	
3	1st Semester	1/1/2017	1/3/2017	2	3	
4	2nd Semester	6/4/2017	6/7/2017	2	1	
5	1st Semester	11/15/2017	11/22/2017	3	2	
6	1st Semester	10/9/2017	10/11/2017	4	3	
7	1st Semester	5/7/2017	5/10/2017	5	1	
8	2nd Semester	11/22/2017	11/29/2017	5	2	
9	1st Semester	5/17/2017	5/23/2017	6	3	
10	2nd Semester	11/15/2016	11/16/2016	6	1	
11	1st Semester	1/1/2017	1/3/2017	7	2	
12	2nd Semester	7/3/2017	7/6/2017	7	3	
13	1st Semester	2/2/2017	2/5/2017	8	1	
14	2nd Semester	8/3/2017	8/6/2017	8	2	
15	1st Semester	5/12/2017	5/15/2017	9	3	
16	2nd Semester	11/15/2017	11/19/2017	9	1	
17	1st Semester	11/16/2017	11/18/2017	10	2	
18	1st Semester	11/17/2016	11/19/2016	11	3	
19	2nd Semester	5/21/2017	5/25/2017	11	1	

i. Student

StudentID	StudentFName	StudentLName	StudentAddress	StudentPostcode	StudentHomeTelNo	StudentDOB	StudentNationality
1	Andrew	Russel	29 Montre Nelson	Nelson Central	223564604 M	6/29/1986	New Zealand
2	Alana	Arkinson	275 Montr Christchur	275 Montreal Street	223564502 F	3/24/1993	Ireland
3	Ben	Affleck	Waterloo (Auckland	23 Martel Road, Wa	223567892 M	5/23/1984	Denmark
4	Bryanaa	Crainstone	7 Dickinson Michigan	7 Dickinson St SE, M	223564602 F	2/24/1991	Russia
5	Caleb	Tatum	131 Hardy Nelson	131 Hardy St, Nelso	223567891 M	12/15/1984	United States
6	Charles	Therron	31 Allenda Chicago	31 Allendale St, Chit	325447891 F	3/2/1986	Australia
7	Chris	Cooper	22 Milton Cliff Town	122 Milton Hill, Cliff	456781234 M	2/12/1989	Iceland
8	Blake	Russel	45 Nile St Lansing	45 Nile St, Lansing,	225645689 M	2/18/1990	Poland
9	Liam	Hemsworth	27 Yorimui Atlanta	27 Yorimun St, Atlan	324578912 M	2/6/1974	Brazil
10	Chrsitina	Alergy	23 Duke St Melbourne	23 Duke St, Melbou	121358978 F	2/16/1993	Argentina
11	Kajal	Bipasha	12 Badda f Dhaka	12 Badda rd, Gulsha	1911246250 F	4/27/1991	Bangladesh
12	Chris	Rock	Bedfroad S Brooklyn	12 Bedfroad St, Bro	1913486153 M	12/3/1994	United States
13	Adavin	Douchebag	Blackpool Lancashire	45 Blackpool St, Lan	1911246528 M	2/15/2000	United Kingdom
14	Heines	Hopper	12 Baftere Northland	12 Baftereast St, No	1911246508 M	8/18/1990	Canada
15	Elinaa	Alice	24 Jump St London	24 Jump St, London,	235645898 F	6/19/1989	Australia
16	Rice	Christine	12 Long Rc London	12 Long Road, Lond	235646666 F	11/2/1991	United Kingdom
17	Ronald	Dahlia	27 Longmi Denmark	27 Lomnire Shire, D	124597788 M	11/8/1993	Denmark
18	David	Beckham	19 Crigmo Holland	9 Crigmon St, Hollar	123456892 M	2/3/1994	Holland
19	Cho	Chang	123 Shanghai	123 Shanghai, China	124566699 F	4/5/1989	China

j. Employee

EmployeeID	EmpFirst	EmpLast	EmpStreet	EmpCity	EmpPost	WorkTel	EmpMob	EmpEmail	IRDNo	EmpDOB
1	Lee	Aeker	Daniell	Wellington	6021 02235646	022356461	022356461	aker.lee2	123456456	6/22/1981
2	Willam	Akes	Nelson St	Auckland	1010 02135646	02312351	02312351	akes.willar	12452389	10/17/1984
3	Jack	Abel	445 Mount	Auckland	1010 02245678	02455678	02455678	abel23.jac	12345678	3/30/1981
4	Aaron	Aker	21 greens	Auckland	1010 02235456	02235456	02235456	aker.aaron	12345657	10/18/1983
5	Harry	Singh	7 Waterloo	Wellington	6011 02145546	021455461	021455461	harry.singh	123457412	4/23/1986
6	Jordan	Yang	Christmas	Auckalnd	2102 02412345	02412345	02412345	yangchi.jo	123456789	10/27/1980
7	Jessica	Alba	Christchur	Little River	7591 02235646	02235604	02235604	alba.jessic	12369874	10/30/1984
8	Alfraz	Yamin	Nelson Cre	Napier Sou	4110 02235646	022356461	022356461	yamin.alfa	123496325	4/27/1991
9	Shourabik	Sikender	Nelson Str	Lower Hut	5012 02145789	02147895	02147895	sikender5_	12354568	12/2/1989
10	Monkey	Singh	Nelson Str	Little River	5013 02145646	022356461	022356461	monky.h	12345689	3/20/1984

5 SQL Queries

5.1 Query 1 -

5.1.1 Description

- This statement will show a list of all the students in a particular Hall of Residence. For the particular Hall, I had chosen Nikau Hall.

5.1.2 SQL statement

- SELECT Student.StudentFirstName, Student.StudentLastName, Hall.HallName FROM (Hall INNER JOIN Room ON Hall.HallNo = Room.HallNo) INNER JOIN (Student INNER JOIN Lease ON Student.StudentNo = Lease.StudentNo) ON Room.PlaceNo = Lease.PlaceNo WHERE (Hall.HallName="Nikau Hall");

5.1.3 Results

- Screenshot

Students In particular hall		
StudentFirstName	StudentLastName	HallName
Andrew	Russel	Nikau Hall
Rice	Christine	Nikau Hall
*		

5.2 Query 2 -

5.2.1 Description

- This statement will show a list of all the students who have been sent one reminder notice.

5.2.2 SQL statement

- SELECT Student.StudentFirstName, Student.StudentLastName, Reminder.DateReminder1 FROM ((Student INNER JOIN Lease ON Student.StudentNo = Lease.StudentNo) INNER JOIN Invoice ON Lease.LeaseNo = Invoice.LeaseNo) INNER JOIN Reminder ON Invoice.InvoiceNo = Reminder.InvoiceNo;

5.2.3 Results

- Screenshot

Student to whom one reminder being sent		
StudentFirstName	StudentLastName	DateReminder1
Liam	Hemsworth	2/15/2016
Chris	Rock	5/3/2017
Chrsitina	Alergry	9/5/2017
Ben	Affleck	10/20/2017
Alana	Arkinson	11/10/2017
*		

5.3 Query 3 -

5.3.1 Description

- This statement will show a list of all the rooms that are currently rented.

5.3.2 SQL statement

- `SELECT Room.RoomNo FROM Room INNER JOIN (Student INNER JOIN Lease ON Student.StudentNo = Lease.StudentNo) ON Room.PlaceNo = Lease.PlaceNo;`

5.3.3 Results

- Screenshot

List of rooms that are currently rented	
	RoomNo
	1
	2
	2
	2
	3
	3
	3
	3
	3
	4
	4
	4
	4
	4
	5
	5
	6
	7
	8
	9
*	

5.4 Query 4 -

5.4.1 Description

- This statement will show a list of names of students who are Male (M) and living in one of the Hall's. For this Query design we choose Lafayete Hall.

5.4.2 SQL statement

- ```
SELECT Student.StudentFirstName, Student.StudentLastName, Hall.HallName FROM
(Hall INNER JOIN Room ON Hall.HallNo = Room.HallNo) INNER JOIN (Student INNER
JOIN Lease ON Student.StudentNo = Lease.StudentNo) ON Room.PlaceNo
Lease.PlaceNo WHERE (Student.StudentGender)='M' AND (Hall.HallName='Lafayete
Hall');
```

### 5.4.3 Results

- Screenshot

| StudentFirstName | StudentLastName | HallName      |
|------------------|-----------------|---------------|
| Ping             | Yang            | Lafayete Hall |
| *                |                 |               |

## 5.5 Query 5 -

### 5.5.1 Description

- This statement will show a list of students with their first and last name, who paid cash for the room rent.

### 5.5.2 SQL statement

- ```
SELECT Student.StudentFirstName, Student.StudentLastName FROM (Student INNER
JOIN Lease ON Student.StudentNo = Lease.StudentNo) INNER JOIN (PaymentMethod
INNER JOIN Invoice ON PaymentMethod.PaymentMethodNo =
Invoice.PaymentMethodNo) ON Lease.LeaseNo = Invoice.LeaseNo WHERE
(PaymentMethod.PaymentMethod)='Cash';
```

5.5.3 Results

- Screenshot

StudentFirstName	StudentLastName
Adavin	Douchebag
Alana	Arkinson
Ben	Affleck
Blake	Russel
Bryanaa	Crainstone
Elinaa	Alice
Kajal	Bipasha
Liam	Hemsworth
Ping	Yang
Rice	Christine
Ronald	Dahla
*	

6 Report

- This Report will show a list of names of students who are Male (M) and living in one of the Hall's. For this Query design we choose Lafayete Hall.

Names of Male Students in one of the hall		
StudentFirstName	StudentLastName	HallName
Names of Male Students in one of the hall		
Ping	Yang	Lafayete Hall
		1

- This report will show a list of students with their first and last name, who paid cash for the room rent.

Student Paid With Cash		Monday, November 6, 2017	6:56:15 PM
StudentFirstName	StudentLastName		
Adavin	Douchebag		
Alana	Arkinson		
Ben	Affleck		
Blake	Russel		
Bryanaa	Crainstone		
Elinaa	Alice		
Kajal	Bipasha		
Liam	Hemsworth		
Ping	Yang		
Rice	Christine		
Ronald	Dahla		
	11		

7 Problems Encountered

A lot of problem has been encountered when approaching this project. These problems have been described down below, briefly.

- The first problem that I encountered was while creating data dictionary. Because the total bytes for each of the table has changed while I was doing the project. Sometimes I changed the number of records for the assignment, because of that total bytes and estimated number has changed. As such, initially I counted the record of only 15 students, but as I was proceeding on with the project, I felt like I need more than 15 students. Thus, I increased that to 25 students, which caused a change in total bytes and estimated number.
- Next when I was doing the assignment I had trouble connecting the table with each other. I have to find out which primary key is connected with which table. It took me a while to figure it and write statement of each table step by step.
- Then when I was trying to put data in each table using SQL queries, I accidentally deleted one of the INSERT Statement and accidentally entered same INSERT Statement twice, then I deleted one of them, it gave me an uneven number in the primary key. In order to fix those, I had to delete the table and rerun the query again. For that I had to re-enter the INSERT Statement again, which took me forever to do that.
- Finally, when I was trying to create my own queries I had problems understanding which Query would be best and are they going to work fine or not. Some queries I tried to use, didn't work. As such, when I was trying to find the list of all first names of the students that start with 'A', it didn't give me any information on the Query. So, I have to give up on that and think of another query.

But, at the end of this assignment I can say proudly that I learned a lot. Maybe there are lot of things I need to know, or I need to learn about it, but as a whole I really loved the challenge to finish this huge assignment on time. I also loved working with my friend Daniel McCracken and got the chance to learn a lot from him.