Branch

Relation schema

Branch (<u>BranchNo</u>, Street, Area, City, Postcode, TelephoneNo, FaxNo, ManagerStaffNo, ManagerStartDate, BonusPayment, CarAllowance)

Primary Key

BranchNo

Alternate Keys

TelephoneNo
FaxNo

Foreign Key

ManagerStaffNo references Staff (StaffNo) on delete SET NULL on update CASCADE

Attributes

Name	Description	Data type and length	Domain characteristics	Required	Default value
BranchNo	Uniquely identifies branch office	3 variable character	B followed by integer from 1-99	Yes	
Street	Street of branch address	25 variable character		Yes	

Area	Area of branch address	15 variable character		No	
City	City of branch address	15 variable character		Yes	
Postcode	Postcode of branch address	8 variable character		No	
Telephone No	Telephone number of branch	13 variable character		No	
FaxNo	Fax number of branch	13 variable character		No	
ManagerStaffNo	Staff number of branch manager	5 variable character	Same as Staff (StaffNo)	No	
ManagerStartDate	Date manager started at branch	Date		No	

BonusPayment	Manager's monthly bonus payment	Currency		No	
CarAllowance	Manager's annual car allowance	Currency		No	

Enterprise constraints

None

Staff

Relation schema

Staff (StaffNo, FirstName, LastName, Address, TelephoneNo, Sex, DateOfBirth, Position, Salary, DateJoined, NationalInsuranceNo, TypingSpeed, BranchNo

Primary Key

StaffNo

Alternate Key

NationalInsuranceNo

Foreign Key

BranchNo references Branch (BranchNo) on delete NO ACTION on update CASCADE

Attributes

Name	Description	Data type and length	Domain characteristics	Required	Default value
StaffNo	Uniquely identifies a member of staff	5 variable character	S, followed by letter denoting branch, followed by number from 1-999	Yes	
FirstName	First name of staff	20 variable character		Yes	
LastName	Last name of staff	20 variable character		Yes	

Address	Full home address of staff member	50 variable character		Yes	
Telephone No	Home telephone of staff member	13 variable character		No	
Sex	Gender of staff	1 fixed character	Allowable values 'M' or 'F'	Yes	
DateOfBirth	Date of birth of staff	Date		No	
Position	Position of staff member	20 variable character	Allowable values 'Manager', 'Supervisor', 'Deputy', 'Assistant', 'Secretary'	Yes	
Salary	Salary of staff member	Currency		Yes	
DateJoined	Date staff member joined DreamHome	Date		Yes	
NationalInsuranceNo	National Insurance Number of staff	10 variable character		Yes	

TypingSpeed	Typing speed in words per minute	Integer	Applies only to staff with position 'Secretary'	No	
BranchNo	Branch staff member works at	3 variable character	As for Branch (BranchNo)	Yes	

Enterprise constraints

None

Next Of Kin

Relation schema
NextOfKin (<u>StaffNo, NextOfKinName</u>, Relationship, Address, TelephoneNo)

Primary Key
StaffNo, NextOfKinName

Foreign Key
StaffNo references Staff (StaffNo) on delete CASCADE on update CASCADE

Attributes

Name	Description	Data type and length	Domain characteristics	Required	Default value
StaffNo	Staff member who next of kin is related to	5 variable character	As for Staff (StaffNo)	Yes	
NextOfKin Name	Full name of next of kin	30 variable character		Yes	
Relationship	Relationship of next of kin to staff	20 variable character		No	

Address	Full home address of next of kin	50 variable character		No	
Telephone No	Home telephone of next of kin	13 variable character		No	

Enterprise constraints
None

Allocated Staff

Relation schema
AllocatedStaff (<u>SuperviseeStaffNo</u>, SupervisorStaffNo, SecretaryStaffNo)

Primary Key
SuperviseeStaffNo

Foreign Key
SuperviseeStaffNo references Staff (StaffNo) on delete CASCADE on update CASCADE

SupervisorStaffNo references Staff (StaffNo) on delete SET NULL on update CASCADE

SecretaryStaffNo references Staff (StaffNo) on delete SET NULL on update CASCADE

Attributes

Name	Description	Data type and length	Domain characteristics	Required	Default value
Supervisee StaffNo	Staff number of supervisee	5 variable character	As for Staff (StaffNo)	Yes	
Supervisor StaffNo	Staff number of supervisor	5 variable character	As for Staff (StaffNo)	Yes	
SecretaryStaffNo	Staff number of secretary to workgroup	5 variable character	As for Staff (StaffNo)	Yes	

Enterprise constraints

- A supervisor may supervise a minimum of five and a maximum of ten members of staff, at any one time.
- A secretary may support one or more workgroups at the same branch *(not in text)*
- A supervisee may be in only one workgroup at a time.

Property For Rent

Relation schema

PropertyForRent (<u>PropertyNo</u>, Street, Area, City, Postcode, Type, Rooms, Rent, PrivateOwnerNo, BusinessOwnerNo, StaffNo, BranchNo, Picture, Comments, Withdrawn, DeleteRecord)

Primary Key

PropertyNo

Foreign Keys

OwnerNo references PrivateOwner (OwnerNo) and BusinessOwner (OwnerNo) on delete NO ACTION on update CASCADE
StaffNo references Staff (StaffNo) on delete SET NULL on update CASCADE
BranchNo references Branch (BranchNo) on delete SET DEFAULT on update CASCADE

Attributes

Name	Description	Data type and length	Domain characteristics	Required	Default value
PropertyNo	Unique identifier for a property	5 variable character	P, followed by letter indicating city, followed by number from 1-999	Yes	
Street	Street of property address	25 variable character		Yes	

Area	Area or suburb of property address	15 variable character		No	
City	City of property address	15 variable character		Yes	
Postcode	Postcode of property address	8 variable character		No	
Type	Code describing type of property	1 fixed character	Allowable values: B (bungalow), C (cottage), D (detached), E (end-terrace), F (flat) M (mid-terrace), S (semi-detached)	Yes	F
Rooms	Number of rooms in property (excluding bathroom(s))	Integer	Allowable range 1-15	No	4
Rent	Monthly rent of property	Currency		No	600

PrivateOwnerNo	Owner number of private owner of the property	5 variable character	As for PrivateOwner (OwnerNo)	No	
BusinessOwnerNo	Owner number of business owner of the property	5 variable character	As for BusinessOwner (OwnerNo)	No	
StaffNo	Staff number of staff member responsible for managing the property	5 variable character	As for Staff (StaffNo)	No	
BranchNo	Branch number of branch property is registered at	3 variable character	As for Branch(BranchNo)	Yes	
Picture	Picture of property	Graphic		No	
Comments	Comments about property	255 variable character		No	
*Withdrawn	Date property was withdrawn from available list	Date		No	

*DeleteRecord	Confirm deletion of record	Yes/No		No	

Enterprise constraints

- A member of staff may supervise a maximum of ten properties for rent at any one time.
- The monthly rent for a property should be reviewed annually
- Property records are kept for at least three years after being withdrawn from rental and may then be deleted

Notes

Attributes marked with * have been added to those listed in textbook

Private Owner

Relation schema
PrivateOwner (<u>PrivateOwnerNo</u>, FirstName, LastName, Address,
TelephoneNo)

Primary Key
PrivateOwnerNo

Attributes

Name	Description	Data type and length	Domain characteristics	Required	Default value
PrivateOwnerNo	Uniquely identifies a private owner	5 variable character	CO followed by number from 1-999	Yes	
FirstName	First name of owner	20 variable character		Yes	
LastName	Last name of owner	20 variable character		Yes	
Address	Full address of owner	50 variable character		Yes	

Telephone	Home telephone number of owner	13 variable character		No	

Enterprise constraints

None

Business Owner

Relation schema
BusinessOwner (<u>BusinessOwnerNo</u>, BusinessName, BusinessType, Address, TelephoneNo, ContactName)

Primary Key
BusinessOwnerNo

Alternate Key
TelephoneNo

Attributes

Name	*Description*	*Data type and length*	*Domain characteristics*	*Requi red*	*Defa ult valu e*
BusinessO wnerNo	Uniquely identifies a business owner	5 variabl e charact er	CB followed by number from 1-999	Yes	
BusinessNa me	Name of business	30 variabl e charact er		Yes	
BusinessTy pe	Type of business	20 variabl e charact er		Yes	
Address	Full address of business	50 variabl e charact er		Yes	

Telephone	Telephone number of business	13 variable character		Yes	
ContactName	Full name of contact person in business	30 variable character		No	

Enterprise constraints

None

Lease Agreement

Relation schema

LeaseAgreement (<u>LeaseNo</u>, RenterNo, PropertyNo, PaymentMethod, Rent, DepositAmount, DepositPaid, RentStart, RentFinish)

Primary Key

LeaseNo

Alternate Key

PropertyNo, RentStart

Foreign Keys

RenterNo references Renter (RenterNo) on delete NO ACTION on update CASCADE

PropertyNo references PropertyForRent (PropertyNo) on delete NO ACTION on update CASCADE

Attributes

Name	Description	Data type and length	Domain characteristics	Required	Default value
LeaseNo	Uniquely identifies lease	8 variable character	L followed by letter denoting branch city followed by number from 1-99999	Yes	
RenterNo	Renter number of renter involved in lease	5 variable character	As for Renter (RenterNo)	Yes	

PropertyNo	Property number of property involved in lease	5 variable character	As for PropertyForRent (PropertyNo)	Yes	
PaymentMethod	Method of payment of rent	15 variable character	Allowable values: 'Cash', 'Credit', 'Cheque', 'Standing Order'	Yes	
Rent	Monthly rent	Currency		Yes	
DepositAmount	Amount of deposit	Currency		Yes	2* Rent
DepositPaid	Whether deposit has been paid	Boolean	Allowable values 'Yes', 'No'	Yes	
RentStart	Date lease commences	Date		Yes	
RentFinish	Date lease ends	Date		Yes	

Enterprise constraints
- The length of a lease is from 3 to 12 months
- The deposit amount is twice the monthly rent

Renter

Relation schema
Renter (<u>RenterNo</u>, FirstName, LastName, Address, TelephoneNo, PreferredType, MaximumRent, BranchNo)

Primary Key
RenterNo

Foreign Key
BranchNo references Branch (BranchNo) on delete NO ACTION on update CASCADE

Attributes

Name	Description	Data type and length	Domain characteristics	Required	Default value
RenterNo	Uniquely identifes a renter	5 variable character	CR followed by a number from 1-999	Yes	
FirstName	First name of renter	20 variable character		Yes	
LastName	Last name of renter	20 variable character		Yes	

Address	Full address of renter	50 variable character		Yes	
Telephone No	Telephone number of renter	13 variable character		No	
PreferredType	Type of property renter prefers	1 fixed character	Allowable values: B (bungalow), C (cottage), D (detached), E (end-terrace), F (flat) M (mid-terrace), S (semi-detached)	No	
Maximum Rent	Maximum monthly rent renter is prepared to pay	Currency		No	
BranchNo	Branch renter is registered at	5 variable character		Yes	

Enterprise constraints
None

Viewing

Relation schema
Viewing (<u>PropertyNo</u>, <u>RenterNo</u>, <u>DateViewed</u>, Comments)

Primary Key
PropertyNo, RenterNo, DateViewed

Foreign Key
PropertyNo references PropertyForRent (PropertyNo) on delete CASCADE on update CASCADE

RenterNo references Renter (RenterNo) on delete CASCADE on update CASCADE

Attributes

Name	Description	Data type and length	Domain characteristics	Required	Default value
PropertyNo	Property number of property viewed	5 variable character	As for PropertyForRent (PropertyNo)	Yes	
RenterNo	Renter number of client involved in viewing	5 variable character	As for Renter (RenterNo)	Yes	
DateViewed	Date the property was viewed	Date		Yes	
Comments	Client's comments on property	50 variable character		No	

Enterprise constraints
None

Inspection

Relation schema
Inspection (<u>PropertyNo</u>, <u>StaffNo</u>, <u>DateInspected</u>, Comments)

Primary Key
PropertyNo, StaffNo

Foreign Key
PropertyNo references PropertyForRent (PropertyNo) on delete CASCADE on update CASCADE
StaffNo references Staff (StaffNo) on delete SET NULL on update CASCADE

Attributes

Name	Description	Data type and length	Domain characteristics	Required	Default value
PropertyNo	Property number of property inspected	5 variable character	As for PropertyForRent (PropertyNo)	Yes	
StaffNo	Staff number of staff member who inspected property	5 variable character	As for Staff (StaffNo)	Yes	
DateInspected	Date property was inspected	Date		Yes	

Comments	Comments on condition of property	255 variable character		No	

Enterprise constraints

- Properties should be inspected at least once over a six month period.