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**2013**

**Teddy Bear Club Nursery Relational Schema**

There is an evident need for Teddy Bear Club Nursery to transform their paper-based record and reporting system into an electronic version that permits more efficient administration and therefore time-saving. This assignment is to design a Relational Database system for Teddy Bear Club Nursery.

**Teddy Bear Club Nursery Relational Schema**

**AC32004–Database Systems**

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Defining Domains

|  |  |  |
| --- | --- | --- |
| **Schema** | TeddyBearNurseryClub | |
| **Domain Name** | **Datatype** | **Validation Rule** |
| **ChildIdentifier** | Varchar(6) | Create a new validation rule called ChildIdentifier  that  must contain the character C followed by 5 digits between the  range of : *C00000....C99999.* |
| **AddressIdentifier** | Varchar(6) | Create a new validation rule called AddressIdentifier  that  must contain the character A followed by 5 digits between the  range of : *A00000....A99999* |
| **RoomIdentifier** | varchar(20) | Create a new validation rule called RoomIdentifier with a list of valid values consisting of : *(“Baby Room”, “Polar Room”, “Panda Room”, “Teddy’s Transformers”, “Daisy’s Discoverers”, “Oakley’s Explorers”);* |
| **DoctorIdentifier** | Varchar(6) | Create a new validation rule called DoctorIdentifier  that  must contain the character D followed by 5 digits between the  range of : *D0000....D99999* |
| **ParentIdentifier** | Varchar(6) | Create a new validation rule called ParentIdentifier  that  must contain the character P followed by 5 digits between the  range of : *P00000....P99999* |
| **RegisterIdentifier** | Varchar(6) | Create a new validation rule called RegisterIdentifier  that  must contain the character R followed by 5 digits between the  range of : *R00000....R99999* |
| **InvoiceIdentifier** | Varchar(6) | Create a new validation rule called InvoiceIdentifier  that  must contain the character I followed by 5 digits between the  range of : *I00000....I99999* |
| **VoucherSchemeIdentifier** | Varchar(6) | Create a new validation rule called VoucherProviderIdentifier  that  must contain the character V followed by 5 digits between the  range of : *S00000....S99999* |
| **VoucherRegisterIdentifier** | Varchar(6) | Create a new validation rule called VoucherRegisterIdentifier  that  must contain the character V followed by 5 digits between the  range of : *V00000....V99999* |
| **FeesIdentifier** | Varchar(6) | Create a new validation rule called ChildIdentifier   that  must contain the character F followed by 5 digits between the  range of : *F00000....F99999* |
| **PaymentHistoryIdenifier** | Varchar(6) | Create a new validation rule called ChildIdentifier   that  must contain the character H followed by 5 digits between the  range of : *H00000....H99999* |
| **PlacementType** | varchar(2) | Create a new validation rule called PlacementType with a list of valid values consisting of : *(“FT”,”PT”);* |
| **PaymentType** | varchar(20) | Create a new validation rule called PaymentType with a list of valid values consisting of : *(“Credit Card”, “Cash”, “Cheque”, “Direct Debit”, “Other”);* |
| **Date** | Date | DD/MM/YYYY |
| **Title** | varchar(35) |  |
| **Name** | varchar(30) |  |
| **Street** | varchar(50) |  |
| **City** | varchar(35) | Create a new validation rule called Country with a Default value of “Dundee” |
| **Postcode** | varchar(8) |  |
| **Telephone** | varchar(11) |  |
| **Mobile** | varchar(11) |  |
| **Email** | varchar(75) |  |
| **Country** | varchar(30) | Create a new validation rule called Country with a Default value of “ United Kingdom” |
| **Currency** | Decimal(10,2) | Default value £0.00 to 2 decimal places |
| **Confirm** | Boolean | Create a new validation rule called confirm with a default value of “false” |
| **Discount** | decimal(4,3) | Create a new validation rule called Discount with a default value of  “0.100” |
| **Relationship** | varchar(20) | Create a new validation rule called Relationship with a list of valid values consisting of :  *(“Mother”, “Father”, “Sibling”, “Family Friend”, “Other Family Member”, “Other”);* |
| **CouncilRegisteration** | varchar(100) |  |
| **Paid** | Boolean | Create a new validation rule called Paid with a default value of “false” |
| **Vacancies** | TINYINT | Create a new validation rule called Vacancies with a Minimum value = 0 |
| **NamedPersonIdentifier** | varchar(6) | Create a new validation rule called NamedPersonIdentifier that  must contain the character N followed by 5 digits between the  range of : *N0000....N99999* |
| **EmergencyIdentifier** | varchar(6) | Create a new validation rule called **EmergencyIdentifier** that  must contain the character E followed by 5 digits between the  range of : *E0000....E99999* |
| **Teas** | TINYINT | Create a new validation rule called **Teas** with a Minimum value = 0 |
| **AddressType** | varchar(4) | Create a new validation rule called **AddressType** with a list of valid values consisting of : *(“Home”,”Work”);* |

Defining Relations

Child Relation  
**Relation** Child  
            ChildID: ChildIdentifier        **NOT ALLOWED NULL**  
            FirstName: Name             **NOT ALLOWED NULL**  
            Surname: Name             **NOT ALLOWED NULL**  
            DOB: Date                 **NOT ALLOWED NULL**  
            StartDate: Date             **NOT ALLOWED NULL**  
            LeavingDate: Date             **ALLOWED NULL**

RoomName: RoomIdentifier     **NOT ALLOWED NULL**

AddressID: AddressIdentifier **NOT ALLOWED NULL**

**Primary Key** (ChildID)  
**Foreign Key** RoomName **REFERENCES** Room.RoomName **NOT ALLOWED NULL**  
  
Register

**Relation** Register

RegisterID : RegisterIdentifier        **NOT ALLOWED NULL**

ChildID: ChildIdentifier            **NOT ALLOWED NULL**

ConsentID: ConsentIdentifier        **NOT ALLOWED NULL**

PreferredStartDate: Date             **ALLOWED NULL**

PlacementType: PlacementType **NOT ALLOWED NULL**

DoctorID: DoctorIdentifier            **NOT ALLOWED NULL**

**Primary Key** ( RegisterID)  
**Foreign Key** ( ChildID ) **REFERENCES** Child.Child ID **NOT ALLOWED NULL**  
**Foreign Key** ( DoctorID ) **REFERENCES** Doctor.DoctorID **NOT ALLOWED NULL**  
**Foreign Key** (ConsentID) **REFERENCES** Consent.ConsentID **NOT ALLOWED NULL**  
  
Doctor Relation  
**Relation** Doctor

DoctorID: DoctorIdentifier  **NOT ALLOWED NULL**

FirstName: Name            **NOT ALLOWED NULL**

Surname: Name            **NOT ALLOWED NULL**

Address: Street            **NOT ALLOWED NULL**

***Primary Key*** *( Doctor ID )*

**Foreign Key** ( Address ID ) **REFERENCES** Address.AddressID **NOT ALLOWED NULL**  
  
Absence Relation  
**Relation** Absence  
            AbsenceID: AbsenceIdentifier     **NOT ALLOWED NULL**  
            Child ID: ChildIdentifier        **NOT ALLOWED NULL**  
            AbsenceDate: Date                **NOT ALLOWED NULL**  
**Primary Key** ( AbsenceID )  
**Foreign Key** ( ChildID ) **REFERENCES** Child.ChildID **NOT ALLOWED NULL**

Room Relation  
**Relation** Room  
            RoomName: RoomIdentifier        **NOT ALLOWED NULL**  
            DailyCharge: Currency            **NOT ALLOWED NULL**   
            WeeklyCharge: Currency        **NOT ALLOWED NULL**  
            TeaCharge: Teas            **NOT ALLOWED NULL**  
            RoomVacancy: Vacancies        **NOT ALLOWED NULL**  
**Primary Key** (RoomName)

Attendance Relation

**Relation**Attendance

AttendanceID: AttendanceIdentifier    **NOT ALLOWED NULL**

FeeID: FeeIdentifier            **NOT ALLOWED NULL**

ChildID: ChildIdentifier            **NOT ALLOWED NULL**

WeekStart: Date                **NOT ALLOWED NULL**

Monday: Attendance **NOT ALLOWED NULL**

Tuesday: Attendance             **NOT ALLOWED NULL**

Wednesday: Attendance             **NOT ALLOWED NULL**

Thursday: Attendance **NOT ALLOWED NULL**

Friday: Attendance **NOT ALLOWED NULL**

RoomName: RoomIdentifier        **NOT ALLOWED NULL**

Teas: Teas                    **NOT ALLOWED NULL**

**Primary Key** (AttendanceID)

**Foreign Key** (RoomName) **REFERENCES** Room.RoomName **NOT ALLOWED NULL**  
**Foreign Key** (ChildID) **REFERENCES** Child.ChildID **NOT ALLOWED NULL**  
**Foreign Key** (FeeID) **REFERENCES** Fee.FeeID **NOT ALLOWED NULL**

Consent

**Relation** Consent

ConsentID: ConsentIdentifier           **NOT ALLOWED NULL**

ChildID: ChildIdentifier                **NOT ALLOWED NULL**

NurseryPolicies: Policy                **NOT ALLOWED NULL**

NurseryPoliciesDate: Date               **NOT ALLOWED NULL**

Walks: Confirm                    **NOT ALLOWED NULL**

CoachTrips: Confirm                **NOT ALLOWED NULL**

PublicTransport: Confirm                **NOT ALLOWED NULL**

PhotoTaken: Confirm                **NOT ALLOWED NULL**

PhotoUsedInNursery: Confirm            **NOT ALLOWED NULL**

PhotoUsedOnWebsite: Confirm            **NOT ALLOWED NULL**

PhotoUsedInPublicityMaterial: Confirm       **NOT ALLOWED NULL**

PhotoUsedInReportDocuments: Confirm   **NOT ALLOWED NULL**

ApplicationOfSunCream: Confirm            **NOT ALLOWED NULL**

ReceiveMedicalTreatment: Confirm        **NOT ALLOWED NULL**

CalpolAdministration: Confirm            **NOT ALLOWED NULL**

**Primary Key** ( Consent ID)  
**Foreign Key** ( Child ID ) **REFERENCES** Child.Child ID **NOT ALLOWED NULL**

Parent Address  
**Relation** ParentAddress  
    ParentID: ParentIdentifier        **NOT ALLOWED NULL**  
    AddressID: AddressIdentifier        **NOT ALLOWED NULL**  
    AddressType: AddressType        **NOT ALLOWED NULL**  
**Primary Key** (ParentID, AddressID)

#### Parent Relation

**Relation** Parent

ParentID: ParentIdentifier    **NOT ALLOWED NULL**

Title: Title                 **NOT ALLOWED NULL**

FirstName: Name**NOT ALLOWED NULL**

Surname: Name**NOT ALLOWED NULL**

NameKnownByAtWork: Name    **ALLOWED NULL**

HomeAddress: Street        **NOT ALLOWED NULL**

WorkAddress: Street        **NOT ALLOWED NULL**

HomePhone: Telephone        **NOT ALLOWED NULL**

WorkPhone Telephone        **ALLOWED NULL**

MobilePhone: Mobile        **ALLOWED NULL**

Email: Email            **ALLOWED NULL**

**Primary Key** (Parent ID)

Child has Parent Relation  
**Relation** ChildParent

ParentID: ParentIdentifier   **NOT ALLOWED NULL**

ChildID: ChildIdentifier        **NOT ALLOWED NULL**

Relationship: Realtionship    **NOT ALLOWED NULL**

**Primary Key** ( Parent ID, Child ID )   
  
Child has Emergency Contact Relation  
**Relation** ChildEmergency Contact

EmergencyContactID: EmergencyIdentifier    **NOT ALLOWED NULL**

ChildID: ChildIdentifier            **NOT ALLOWED NULL**

Relationship: Realtionship            **NOT ALLOWED NULL**

**Primary Key** ( Parent ID, Child ID )   
  
Emergency Contacts

**Relation**  EmergencyContact

EmergencyContactID: EmergencyIdentifier  **NOT ALLOWED NULL**

FirstName:    Name                    **NOT ALLOWED NULL**

Surname: Name                    **NOT ALLOWED NULL**

AddressID: AddressIdentifier            **NOT ALLOWED NULL**

HomePhone: Telephone                **NOT ALLOWED NULL**

MobilePhone: Mobile                **ALLOWED NULL**

Relationship: Relationship                **NOT ALLOWED NULL**

**Primary Key** (EmergencyContactID)  
**Foreign Key** ( Address ID ) **REFERENCES** Address.AddressID **NOT ALLOWED NULL**  
  
Child has Named Person

**Relation** ChildNamedperson  
            ChildID: ChildIdentifier             **NOT ALLOWED NULL**  
            NamedPersonID: NamedPersonIdentifie **NOT ALLOWED NULL**  
**Primary key** ( Child ID, Named Person ID )  
  
Emergency Contacts  
**Relation** NamedPerson

NamedPersonID: NamedPersonIdentifier   **NOT ALLOWED NULL**

FirstName: Name                     **NOT ALLOWED NULL**

Surname: Name                    **NOT ALLOWED NULL**

Relationship: Reltionship                 **NOT ALLOWED NULL**

**Primary Key** ( NamedPersonID)

Address Relation  
**Relation** Address  
            AddressID: AddressIdentifier    **NOT ALLOWED NULL**  
            AddressLine1: Street        **NOT ALLOWED NULL**  
            AddressLine2: Street        **NOT ALLOWED NULL**      
            City : City            **NOT ALLOWED NULL**  
            State/Province: County        **NOT ALLOWED NULL**  
            PostalCode: Postcode       **NOT ALLOWED NULL**

Country: Country        **NOT ALLOWED NULL**

**Primary Key** ( AddressID )  
  
Fee Relation  
**Relation** MonthlyFee  
    FeeID: FeeIdentifier            **NOT ALLOWED NULL**  
    DateCharged: Date            **NOT ALLOWED NULL**  
    RoomName: RoomIdentifier        **NOT ALLOWED NULL**  
    ChildID: ChildIdentifier        **NOT ALLOWED NULL**  
    ParentID: ParentIdentifier        **NOT ALLOWED NULL**  
**Primary Key** (FeeID)  
**Foreign Key** (RoomName) **REFERENCES** Room.RoomName **NOT ALLOWED NULL**  
**Foreign Key** (ChildID)**REFERENCES** Child.ChildID **NOT ALLOWED NULL**  
**Foreign Key** (ParentID)**REFERENCES** Parent.ParentID **NOT ALLOWED NULL**  
  
Monthly Invoice Relation  
**Relation** MonthlyInvoice  
   InvoiceID: InvoicIdentifier                **NOT ALLOWED NULL**  
    VoucherSchemeProviderID: VoucherProviderIdentifier   **NOT ALLOWED NULL**  
    FeeID: FeeIdentifier                      **NOT ALLOWED NULL**  
    LateFee: Currency                       **NOT ALLOWED NULL**  
    OutstandingFee: Currency                    **NOT ALLOWED NULL**  
    Deductions: Currency                        **NOT ALLOWED NULL**  
**Primary Key** (MonthlyInvoiceID)  
**Foreign Key** (FeeID) **REFERENCES** Fee.FeeID **NOT ALLOWED NULL**  
  
Payment History Relation  
**Relation** PaymentHistory  
    PaymentID: PaymentIdentifier        **NOT ALLOWED NULL**  
    ParentID: ParentIdentifier            **NOT ALLOWED NULL**  
    MonthlyInvoiceID: InvoiceIdentifier   **NOT ALLOWED NULL**  
    Paid: confirm                    **NOT ALLOWED NULL**  
    PaymentType: PaymentType           **NOT ALLOWED NULL**  
    DateDue: Date                   **NOT ALLOWED NULL**  
    DatePaid: Date                   **ALLOWED NULL**  
    AmountDue: Currency              **NOT ALLOWED NULL**  
**Primary Key** (PaymentID)  
**Foreign Key** (InvoiceID) **REFERENCES** MonthlyInvoice. InvoiceID **NOT ALLOWED NULL**  
**Foreign Key** (ParentID) **REFERENCES** Parent.ParentID **NOT ALLOWED NULL**  
  
Voucher Scheme Provider Relation  
**Relation** VoucherSchemeProvider  
    VoucherSchemeProviderID: VoucherSchemeIdentifier    **NOT ALLOWED NULL**  
    VoucherSchemeID: VoucherRegisterIdentifier        **NOT ALLOWED NULL**  
    Name: Name                            **NOT ALLOWED NULL**  
    DiscountAmount: Currency                    **NOT ALLOWED NULL**  
**Primary Key** (VoucherSchemeProviderID)  
**Foreign Key** (VoucherSchemeID) **REFERENCES** VoucherScheme.VoucherSchemeID **NOT ALLOWED NULL**  
Deposit Relation  
**Relation** Deposit  
    DepositID: DepositIdentifier    **NOT ALLOWED NULL**  
    DepositPaid: Paid        **NOT ALLOWED NULL**  
    ParentID: ParentIdentifier    **NOT ALLOWED NULL**  
    DepositReturn: confirm    **NOT ALLOWED NULL**  
    DepositDatePaid: Date        **NOT ALLOWED NULL**  
    DepositDateReturn: Date    **ALLOWED NULL**  
    Amount: Currency        **NOT ALLOWED NULL**  
**Primary Key** (DepositID)  
**Foreign Key** (ParentID) **REFERENCES** Parent.ParentID **NOT ALLOWED NULL**

VoucherSchemeRegister Relation  
**Relation** VoucherSchemeRegister  
    VoucherSchemeID: VoucherRegisterIdentifier    **NOT ALLOWED NULL**  
    ParentID: ParentIdentifier                **NOT ALLOWED NULL**  
    ChildID: ChildIdentifier              **NOT ALLOWED NULL**  
    StartDate: Date                       **NOT ALLOWED NULL**  
    VoucherApproved: Confirm                **NOT ALLOWED NULL**

DateSigned: Date                    **NOT ALLOWED NULL**

**Primary Key** (VoucherSchemeID)  
**Foreign Key** (ChildID)**REFERENCES** Child.ChildID **NOT ALLOWED NULL**  
**Foreign Key** (ParentID)**REFERENCES** Parent.ParentID **NOT ALLOWED NULL**

MySQL Statements

=InnoDB DEFAULT CHARSET=latin1

Child  
**CREATE TABLE** Child (  
  ChildID          varchar(6) **NOT NULL**,  
  FirstName       varchar(30) **NOT NULL**,  
  Surname          varchar(30) **NOT NULL**,  
  DOB              date **NOT NULL**,  
  StartDate        date **NOT NULL**,  
  LeavingDate      date **NUL**L,  
  RoomName     varchar(20) **NOT NULL**,  
  AddressID varchar(6) **NOT NULL**,  
 **CONSTRAINT** ChildID  
    **PRIMARY KEY** (ChildID));

**ALTER TABLE** Child **ADD CONSTRAINT** Occupies **FOREIGN** **KEY** (RoomName) **REFERENCES** Room (RoomName);  
**ALTER TABLE** Child **ADD CONSTRAINT** ResidesAt **FOREIGN KEY** (AddressID) **REFERENCES** Address (AddressID);

Register  
**CREATE TABLE** Register (  
  RegisterID        varchar(6) **NOT NULL,**  
  ChildID      varchar(6) **NOT NULL,**  
  ConsentID   varchar(6) **NOT NULL,**  
  DepositID   varchar(6) **NOT NULL,**  
  DoctorID    varchar(6) **NOT NULL,**  
  PlacementType     varchar(2) **NOT NULL,**  
  PreferedStartDate date,  
 **PRIMARY KEY** (RegisterID));

**ALTER TABLE** Register **ADD CONSTRAINT** Enrolls **FOREIGN KEY** (ChildID) **REFERENCES** Child (ChildID);  
**ALTER TABLE** Register **ADD CONSTRAINT** RequiresConsent **FOREIGN KEY** (ConsentID) **REFERENCES** Consent (ConsentID);  
**ALTER TABLE** Register **ADD CONSTRAINT** RequiresDeposit **FOREIGN KEY** (DepositID) **REFERENCES** Deposit (DepositID);  
**ALTER TABLE** Register **ADD CONSTRAINT** RequiresDoctor **FOREIGN KEY** (DoctorID) **REFERENCES** Doctor (DoctorID);  
  
Child has parents  
**CREATE TABLE** ChildParent (  
  ChildID    varchar(6) NOT NULL,  
  ParentID varchar(6) NOT NULL,  
  Relationship    varchar(20) NOT NULL,  
**PRIMARY KEY** (ChildID, ParentID)) ;

**ALTER TABLE** ChildParent **ADD CONSTRAINT** OffspringOff **FOREIGN KEY** (ChildID) **REFERENCES** Child (ChildID);  
**ALTER TABLE** ChildParent **ADD CONSTRAINT** ResponsibleFor **FOREIGN KEY** (ParentID) **REFERENCES** Parent (ParentID);

Child has Emergency Contacts  
**CREATE TABLE** ChildEmergencyContact (  
  ChildID                        varchar(6) NOT NULL,  
  EmergencyContactID varchar(6) NOT NULL,  
  Relationship                      varchar(20) NOT NULL) ;

**ALTER TABLE** ChildEmergencyContact **ADD CONSTRAINT** RequiresContact **FOREIGN KEY** (ChildID) **REFERENCES** Child (ChildID);  
**ALTER TABLE** ChildEmergencyContact **ADD CONSTRAINT** RequiredForEmergency **FOREIGN KEY** (EmergencyContactID) **REFERENCES** EmergencyContact (EmergencyContactID);

Consent  
**CREATE TABLE** Consent (  
  ConsentID                   varchar(6) NOT NULL,  
  DoctorID         varchar(6) NOT NULL,  
  NurseryPolicies             bit(1) NOT NULL,  
  NurseryPoliciesDate      date NOT NULL,  
  AdministerCapol             bit(10) NOT NULL,  
  AdministerCapolDate     date NOT NULL,  
  ApplySunCream            bit(10) NOT NULL,  
  ApplySunCreamDate     date NOT NULL,  
  CoachTrips               bit(10) NOT NULL,  
  NurseryPhotos               bit(10) NOT NULL,  
  PhotosTaken                 bit(10) NOT NULL,  
  PublicTransport             bit(10) NOT NULL,  
  PublicityPhoto              bit(10) NOT NULL,  
  ReceiveMedicalTreatmentDate date NOT NULL,  
  RecieveMedicalTreatment     bit(10) NOT NULL,  
  ReportPhoto                 bit(10) NOT NULL,  
  Walks                       bit(1) NOT NULL,  
  WebsitePhotos               bit(10) NOT NULL,  
 **PRIMARY KEY** (ConsentID));

**ALTER TABLE** Consent **ADD CONSTRAINT** RegistedTo **FOREIGN KEY** (DoctorID) **REFERENCES** Doctor (DoctorID);

Doctor  
**CREATE TABLE** Doctor (  
  DoctorID         varchar(6) NOT NULL,  
  FirstName        varchar(30) NOT NULL,  
  Surname          varchar(50) NOT NULL,  
  AddressID varchar(6) NOT NULL,  
 **PRIMARY KEY** (DoctorID));

**ALTER TABLE** Doctor **ADD CONSTRAINT** PracticeAt **FOREIGN KEY** (AddressID) **REFERENCES** Address (AddressID);

Absence  
**CREATE TABLE** Absence (  
  AbsenceID    varchar(6) NOT NULL,  
  ChildID varchar(6) NOT NULL,  
  AbsenceDate      date NOT NULL,  
 **PRIMARY KEY** (AbsenceID));

**ALTER TABLE** Absence **ADD CONSTRAINT** causes **FOREIGN KEY** (ChildID) **REFERENCES** Child (ChildID);

Room  
**CREATE TABLE** Room (  
  RoomName     varchar(20) NOT NULL,  
  DailyCharge   decimal(10, 2) NOT NULL,  
  WeeklyCharge decimal(10, 2) NOT NULL,  
  TeaCharge    decimal(10, 2) NOT NULL,  
  RoomVacancy   tinyint NOT NULL,  
**PRIMARY KEY** (RoomName));

Attendance  
**CREATE TABLE** Attendance (  
  AttendanceID varchar(6) NOT NULL,  
  ChildID varchar(6) NOT NULL,  
  FeeID    varchar(6) NOT NULL,  
  RoomName     varchar(20) NOT NULL,  
  WeekStart    date NOT NULL,  
  Teas         tinyint NOT NULL,  
  Monday       bit(1) NOT NULL,  
  Tuesday      bit(1) NOT NULL,  
  Wednesday    bit(1) NOT NULL,  
  Thursday     bit(1) NOT NULL,  
  Friday       bit(1) NOT NULL,  
 **PRIMARY KEY** (AttendanceID)) ;

**ALTER TABLE** Attendance **ADD CONSTRAINT** LocatedIn **FOREIGN KEY** (RoomName) **REFERENCES** Room (RoomName);  
**ALTER TABLE** Attendance **ADD CONSTRAINT** Attends **FOREIGN KEY** (ChildID) **REFERENCES** Child (ChildID);  
**ALTER TABLE** Attendance **ADD CONSTRAINT** Generates **FOREIGN KEY** (FeeID) **REFERENCES** MonthlyFee (FeeID);  
  
Parent  
**CREATE TABLE** Parent (  
  ParentID         varchar(6) NOT NULL,  
  TItle            varchar(35) NOT NULL,  
  FirstName        varchar(30) NOT NULL,  
  Surname          varchar(50) NOT NULL,  
  HomeTelephone    varchar(11) NOT NULL,  
  WorkTelephone    varchar(11),  
  MobileTelephone   varchar(11) NOT NULL,  
  Email            varchar(75),  
  NamedKnownatWork varchar(50),  
 **PRIMARY KEY** (ParentID)) ;  
  
Emergency Contacts  
**CREATE TABLE** EmergencyContact (  
  EmergencyContactID varchar(6) NOT NULL,  
  FirstName          varchar(30) NOT NULL,  
  Surname            varchar(50) NOT NULL,  
  AddressAddressID    varchar(6) NOT NULL,  
  HomePhone          varchar(11) NOT NULL,  
  MobilePhone     varchar(11),  
**PRIMARY KEY** (EmergencyContactID)) ;

**ALTER TABLE** EmergencyContact **ADD** **CONSTRAINT** Requires **FOREIGN** **KEY** (AddressID) **REFERENCES** Address (AddressID);

Voucher Scheme Provider  
**CREATE TABLE** VoucherSchemeProvider (  
  VoucherSchemeProviderId varchar(6) NOT NULL,  
  Name                    varchar(100) NOT NULL,  
  Discount                decimal(4, 3) NOT NULL,  
 **PRIMARY KEY** (VoucherSchemeProviderId)) ;

Fee  
**CREATE TABLE** MonthlyFee (  
  FeeID            varchar(6) NOT NULL,  
  DateCharged    date NOT NULL,  
  ChildID    varchar(6) NOT NULL,  
  ParentID   varchar(6) NOT NULL,  
  RoomName varchar(20) NOT NULL,  
**PRIMARY KEY** (FeeID)) ;

**ALTER TABLE** MonthlyFee **ADD CONSTRAINT** AccumulatedBy **FOREIGN KEY** (ChildID) **REFERENCES** Child (ChildID);  
**ALTER TABLE** MonthlyFee **ADD CONSTRAINT** PaidBy **FOREIGN KEY** (ParentID) **REFERENCES** Parent (ParentID);  
**ALTER TABLE** MonthlyFee **ADD CONSTRAINT** calculatedFrom **FOREIGN KEY** (RoomName) **REFERENCES** Room (RoomName);

Monthly Invoice  
**CREATE TABLE** MonthlyInvoice (  
  InvoiceID                       varchar(6) NOT NULL,  
  FeeID                varchar(6) NOT NULL,  
  VoucherSchemeID varchar(6) NOT NULL,  
  PayDate                         date NOT NULL,  
  LateFees                        decimal(10, 2) NOT NULL,  
  Outstanding                   decimal(10, 2) NOT NULL,  
  Deductions                      decimal(10, 2) NOT NULL,  
 **PRIMARY KEY** (InvoiceID)) ;

**ALTER TABLE** MonthlyInvoice **ADD CONSTRAINT** Discounts **FOREIGN** **KEY** (VoucherSchemeID) **REFERENCES** VoucherSchemeRegister (VoucherSchemeID);  
**ALTER** **TABLE** MonthlyInvoice **ADD** **CONSTRAINT** GeneratesFee **FOREIGN** **KEY** (FeeID) **REFERENCES** MonthlyFee (FeeID);

#### Payment History

**CREATE TABLE** PaymentHistory (  
  PaymentID                  varchar(6) NOT NULL,  
  InvoiceID varchar(6) NOT NULL,  
  ParentID             varchar(6) NOT NULL,  
  Paid                       bit(1) NOT NULL,  
  PaymentType             varchar(20) NOT NULL,  
  DateDue                   date NOT NULL,  
  AmountDue                  int(10) NOT NULL,  
  DatePaid                   date,  
**PRIMARY KEY** (PaymentID)) ;

**ALTER TABLE** PaymentHistory **ADD CONSTRAINT** Requests **FOREIGN KEY** (InvoiceID) **REFERENCES** MonthlyInvoice (InvoiceID);  
**ALTER TABLE** PaymentHistory **ADD CONSTRAINT** PaymentBy **FOREIGN KEY** (ParentID) **REFERENCES** Parent (ParentID);

Deposit  
**CREATE TABLE** Deposit (  
  DepositID               varchar(6) NOT NULL,  
  DepositPaid             bit(1) NOT NULL,  
  DepositReturned         bit(1) NOT NULL,  
  Amount                  decimal(10, 2) NOT NULL,  
  DepositPaidDate     date NOT NULL,  
  DepositRefundedDate date,  
**PRIMARY KEY** (DepositID)) ;  
  
  
Voucher Scheme Register  
**CREATE TABLE** VoucherSchemeRegister (  
  VoucherSchemeID                         varchar(6) NOT NULL,  
  VoucherSchemeProviderId varchar(6) NOT NULL,  
  ChildID                                 varchar(6) NOT NULL,  
  ParentID                               varchar(6) NOT NULL,  
  IntendedStartDate                        date NOT NULL,  
  RegisteredWithCouncil                 bit(1) NOT NULL,  
  DateSigned                              date NOT NULL,  
 **PRIMARY KEY** (VoucherSchemeID)) ;

**ALTER TABLE** VoucherSchemeRegister **ADD CONSTRAINT** Provides **FOREIGN KEY** (VoucherSchemeProviderId) **REFERENCES** VoucherSchemeProvider (VoucherSchemeProviderId);  
**ALTER TABLE** VoucherSchemeRegister **ADD CONSTRAINT** Uses **FOREIGN KEY** (ChildID) **REFERENCES** Child (ChildID);  
**ALTER TABLE** VoucherSchemeRegister **ADD CONSTRAINT** Accredited **FOREIGN KEY** (ParentID) **REFERENCES** Parent (ParentID);

Address  
**CREATE TABLE** Address (

AddressID varchar(6) NOT NULL,

AddressLine varchar(50) NOT NULL,

AddressLineTwo varchar(50),

City varchar(35) NOT NULL,

County varchar(30),

Postcode varchar(8) NOT NULL,

Country varchar(30),

**PRIMARY KEY** (AddressID));

Form and Report Designs

**bmission**

You should submit a report that documents the following:

·        relational schema for your database

·        designs of relevant forms and reports

·        SQL statements used to set up your database

·        ID + password information to access to the database itself.

Appropriately constructed relational schema                                                              20%  
Useable and useful forms and reports                                                                           40%  
Appropriate SQL commands that enable the database to function                      40%