**Set 5 - Assignments on Creating Tables**

**Q.1.** Create the table **Customer\_Details** having following specifications:

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Data type** | **Constraints** |
| Customer\_Id | Numeric with maximum 4 digits | Auto generated. The starting value must be 501 |
| C\_FirstName | Character | Ensure numeric value cannot get entered and special characters cannot get entered |
| C\_LastName | Character | Ensure numeric value cannot get entered and special characters cannot get entered |
| C\_Temperature | Number | There can be maximum 3 digits before decimal and only 2 digits after decimal |
| Date\_of\_Enrollment | Date | Cannot be empty and should be any date of 2nd or 3rd quarter of 2019 of Indian fiscal year. |
| MailId | Character | Cannot repeat & is mandatory |
| Customer\_Registration\_No | Character | The first 4 characters should be ZEN- and the last character should be K. In between these characters there should be exactly 4 characters. |
| Customer\_Token\_Number | Character, fixed length of 10 | Should be always blank, i.e. cannot be entered by user. |
| Customer\_Ref\_Number | Character | Should be in upper case only |
| Date\_of\_Processing | Date | Date\_of\_Processing should be always greater than Date\_of\_enrollment & the difference should not exceed 10 days. |
| Processing\_Cost | Cannot have any decimals | Cannot be less than 500 |
| Service\_Charge | Numeric | Should be less than or equal to 12% of Processing\_Cost |

**create table Customer\_Details**

**(Customer\_Id int identity(501,1) check(Customer\_Id between 0 and 9999),**

**C\_FirstName varchar(20) Check(C\_FirstName NOT LIKE '%[^a-zA-Z]%'),**

**C\_LastName varchar(20) Check(C\_LastName NOT LIKE '%[^a-zA-Z]%'),**

**C\_Temperature decimal(5,2),**

**Date\_of\_Enrollment date Not Null check(Date\_of\_Enrollment between '2019-04-01' and '2019-09-30'),**

**MailId varchar(50) unique not null,**

**Customer\_Registration\_No varchar(8) check(Customer\_Registration\_No like 'ZEN\_\_\_\_K'),**

**Customer\_Token\_Number varchar(10) null check(Customer\_Token\_Number is Null),**

**Customer\_Ref\_Number varchar(10) check(Customer\_Ref\_Number = upper(Customer\_Ref\_Number)),**

**Date\_of\_Processing date,**

**Processing\_Cost int check(Processing\_Cost>500),**

**Service\_Charge numeric ,**

**check(dbo.Date\_Check(Date\_of\_Enrollment, Date\_of\_Processing) between 1 and 10),**

**check(Service\_Charge <= Processing\_Cost\*.12))**

Q.2. There is a Computer Training Institute named **Mandar's BI** which conducts trainings on **Power BI**.

Create following relational tables**, which will depict the flow from initial student’s enquiry to dispatching certificate after completing the project.** Also enter some **meaningful** records for testing purpose.

Table 1: **Enquiry\_Master**

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Data Type** | **Rules and other details** |
| Enquiry\_ID | Alphanumeric | Cannot repeat and cannot be blank |
| Enquiry\_Name | Characters | May be blank |
| Enquiry\_Mobile\_Number | Numeric | Cannot be blank |
| Enquiry\_Date | Date | Cannot be blank |
| SalesmanID | Alphanumeric | Can repeat, but cannot be blank |

**--t1**

**create table Enquiry\_Master**

**(Enquiry\_ID varchar(10) Primary Key not null ,**

**Enquiry\_Name varchar(50),**

**Enquiry\_Mobile\_Number varchar(15) not null,**

**Enquiry\_Date date not null,**

**SalesmanID varchar(10) not null)**

Table 2: **Enrollment\_Master**

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Data Type** | **Rules and other details** |
| Enrollment\_ID | Alphanumeric | Must be taken from Enquiry\_ID of Enquiry\_Master |
| Enrollment\_Name | Characters | Cannot be blank |
| Enrollment\_Mobile\_Number | Numeric | Cannot be blank |
| Enrollment\_Date | Date | Cannot be blank |
| Fees | Numeric | Cannot be blank, default value 10000 |

**--t2**

**create table Enrollment\_Master**

**(Enrollment\_ID varchar(10) primary key REFERENCES Enquiry\_Master(Enquiry\_ID) ON UPDATE CASCADE,**

**Enrollment\_Name varchar(50) not null,**

**Enrollment\_Mobile\_Number numeric not null,**

**Enrollment\_Date date not null,**

**Fees numeric not null default(10000))**

Table 3: **Training\_Batch**

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Data Type** | **Rules and other details** |
| Student\_ID | Alphanumeric | Must be taken from Enrollment\_ID of the table Enrollment \_Master |
| Batch\_ID | Alphanumeric | Cannot be blank |
| Batch\_Type | Characters | Cannot be blank, can be either Online or Physical Classroom |
| Trainer\_ID | Alphanumeric | Cannot be blank |

**--t3**

**create table Training\_Batch**

**(Student\_ID varchar(10) Primary Key REFERENCES Enrollment\_Master(Enrollment\_ID) ON UPDATE CASCADE,**

**Batch\_ID varchar(20) not null,**

**Batch\_Type varchar(20) check(Batch\_Type='Online' or Batch\_Type = 'Physical Classroom'),**

**Trainer\_ID varchar(20) not null)**

Table 4: **Post\_Training\_Project**

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Data Type** | **Rules and other details** |
| Student\_ID | Alphanumeric | Must be taken from Student\_ID of the table Training\_Batch |
| Project\_ID | Alphanumeric | Cannot be blank |
| Project\_Start\_Date | Date | Cannot be blank |
| Project\_End\_Date | Date | Cannot be blank |

**--t4**

**create table Post\_Training\_Project**

**(Student\_ID varchar(10) Primary Key REFERENCES Training\_Batch(Student\_ID) ON UPDATE CASCADE,**

**Project\_ID varchar(10),**

**Project\_Start\_Date date,**

**Project\_End\_Date date)**

Table 5: **Certificate\_Details**

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Data Type** | **Rules and other details** |
| Student\_ID | Alphanumeric | Must be taken from Student\_ID of the table Post\_Training\_Project |
| Certificate\_ID | Alphanumeric | Cannot be blank and cannot repeat |
| Date\_Of\_Issue | Date | Cannot be blank |

**--t5**

**create table Certificate\_Details**

**(Student\_ID varchar(10) REFERENCES Post\_Training\_Project(Student\_ID) ON UPDATE CASCADE, --to be taken from Student\_ID of the table Post\_Training\_Project**

**Certificate\_ID varchar(10) Not NUll,**

**Date\_Of\_Issue date Not Null)**