1. **Problema exemplu ----------Biblioteca**

|  |  |  |
| --- | --- | --- |
| **Cititori** | **Carti** | **Imprumuturi** |
| Id\_cititor  Nume  Prenume  CNP | Id\_carte  Titlu  Autor  Cota | Id\_imprumut  Id\_cititor  Id\_carte  DataImprumut  DataLimita  EsteAdusa |

Constrângeri pt. Imprumuturi : fk\_id\_cititor, fk\_id\_carte, dataimprumut <= data sistem ,datalimita= dataimprumut +7zile (sa se completeze automat), este adusa (de tip bit )

1.Sa se construiasca baza de date Biblioteca

2.Sa se populeze baza de date cu cel putin 3 intrari corespunzatoare cerintelor

3.Sa se afiseze toti cititorii si toate cartile

4.Sa se creeze o procedura stocata de cautare a cartilor dupa cota

5.Sa se creeze o procedura stocata de afisare a imprumuturilor detaliata date cititor, date carte, date imprumut

6.Sa se creeze o vedere care sa contina date detaliate despre imprumuturile restante (date cititor, date carte, date imprumut)

7.Sa se creeze un trigger care sa nu imi permita sa sterg un imprumut daca cartea nu a fost adusa

8.Sa se faca un backup la baza de date

**Rezolvare profesor:**

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use master

if exists (select \* from sysdatabases where name='Biblioteca')

drop database Biblioteca

go

CREATE DATABASE Biblioteca

ON PRIMARY

(

NAME= Biblioteca\_Data,

FILENAME='d:\Date\Biblioteca\_Data.mdf',

SIZE=8MB,

FILEGROWTH=2MB

)

LOG ON

(

NAME= Biblioteca\_Log,

FILENAME='D:\Date\Biblioteca\_Log.ldf',

SIZE=2MB,

MAXSIZE=10MB,

FILEGROWTH=1MB

)

go

use Biblioteca

CREATE TABLE Cititori(

id\_cititor int PRIMARY KEY,

nume varchar(30),

prenume varchar(30),

cnp varchar(15)

)

CREATE TABLE Carti(

id\_carte int PRIMARY KEY,

titlu varchar(30),

autor varchar(30),

cota varchar(30)

)

CREATE TABLE Imprumuturi(

id\_imprumut int IDENTITY(5,5) PRIMARY KEY,

id\_carte int ,

id\_cititor int,

dataImprumut datetime,

dataLimita datetime CONSTRAINT defa\_data\_limita DEFAULT(dateadd(day,7,CONVERT(date,getdate(),0))),

esteAdusa tinyint default 0 not null,

Constraint fk\_id\_carte FOREIGN KEY(id\_carte) REFERENCES Carti(id\_carte),

Constraint fk\_id\_cititor FOREIGN KEY(id\_cititor) REFERENCES Cititori(id\_cititor),

Constraint data\_imprumut\_check CHECK ( dataImprumut<=getdate())

)

go

----creare trigger pt. a modifica datalimita=dataimprumut +7 zile

---constr. DEFAULT nu permite folosirea altor campuri in expresia DEFAULT

use biblioteca

go

IF EXISTS ( SELECT name FROM sysobjects

WHERE type = 'TR' AND name = 'Data' )

DROP TRIGGER Data

GO

CREATE TRIGGER Data

ON [Imprumuturi]

FOR INSERT

AS

UPDATE Im SET

Im.dataLimita =dateadd(dd,7,Im.dataImprumut)

FROM Imprumuturi as Im INNER JOIN Inserted AS I

ON Im.id\_imprumut= I.id\_imprumut

GO

SELECT name FROM sysobjects

WHERE type = 'TR'

ORDER BY type, name

GO

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insert into Cititori(id\_cititor,nume,prenume,cnp )

VALUES (10,'ANUME','APRENUME','1630726400519')

insert into Cititori(id\_cititor,nume,prenume,cnp )

VALUES (20,'BNUME','BPRENUME','1590416400530')

insert into Cititori(id\_cititor,nume,prenume,cnp )

VALUES (30,'CNUME','CPRENUME','2650318300340')

insert into Cititori(id\_cititor,nume,prenume,cnp )

VALUES (40,'DNUME','DPRENUME','2700822300345')

insert into Cititori(id\_cititor,nume,prenume,cnp )

VALUES (50,'ENUME','EPRENUME','2851115500340')

go

insert into Carti(id\_carte,titlu,autor,cota)

VALUES (100,'La Medeleni','I. Teodoreanu','123')

insert into Carti(id\_carte,titlu,autor,cota)

VALUES (200,'Ion','I. Rebreanu','789')

insert into Carti(id\_carte,titlu,autor,cota)

VALUES (300,'Padurea Spanzuratilor','I. Rebreanu','54')

insert into Carti(id\_carte,titlu,autor,cota)

VALUES (400,'Strainul','A. Camus','546')

insert into Carti(id\_carte,titlu,autor,cota)

VALUES (500,'Quo vadis','H. Sienkiewicz','234')

insert into Carti(id\_carte,titlu,autor,cota)

VALUES (600,'Potopul','H. Sienkiewicz','234')

go

insert into Imprumuturi(id\_cititor,id\_carte,dataimprumut,esteAdusa)

values(10,100,'12/12/2009',1)

insert into Imprumuturi(id\_cititor,id\_carte,dataimprumut,esteAdusa)

values(10,200,'12/12/2009',0)

insert into Imprumuturi(id\_cititor,id\_carte,dataimprumut,esteAdusa)

values(20,300,'01/10/2010',0)

insert into Imprumuturi(id\_cititor,id\_carte,dataimprumut,esteAdusa)

values(30,400,'03/20/2009',0)

insert into Imprumuturi(id\_cititor,id\_carte,dataimprumut,esteAdusa)

values(40,500,'12/23/2009',1)

insert into Imprumuturi(id\_cititor,id\_carte,dataimprumut,esteAdusa)

values(50,600,'12/27/2009',1)

go

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select ci.nume,ci.prenume,ci.cnp,c.titlu,c.autor,c.cota,convert(char(8),i.dataImprumut,1) AS data\_imprumut,convert(char(8),i.dataLimita,1) as data\_limita,i.esteAdusa

from cititori as ci

inner join imprumuturi as i

on ci.id\_cititor=i.id\_cititor

inner join carti as c

on c.id\_carte=i.id\_carte

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use Biblioteca

go

if EXISTS(SELECT \* FROM sysobjects WHERE type = 'P' AND name = 'Cauta\_carte')

drop procedure dbo.Cauta\_carte

go

create procedure Cauta\_carte

@cota nvarchar(30)

as

if EXISTS(SELECT \* FROM Carti WHERE cota = @cota)

select titlu,autor,cota

from Carti

where (@cota=cota)

ELSE

SELECT 'Cartea cu cota '+str(@cota)+' nu exista !!'

go

exec Cauta\_carte @cota=54

go

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use Biblioteca

go

if EXISTS(SELECT \* FROM sysobjects WHERE type = 'P' AND name = 'Afisare')

drop procedure dbo.Afisare

go

create procedure Afisare

as

select ci.nume,ci.prenume,ci.cnp,c.titlu,c.autor,c.cota,convert(char(8),i.dataImprumut,1)as data\_imprumut,convert(char(8),i.dataLimita,1) as data\_limita,i.esteAdusa

from cititori as ci

inner join imprumuturi as i

on ci.id\_cititor=i.id\_cititor

inner join carti as c

on c.id\_carte=i.id\_carte

go

exec Afisare

go

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use Biblioteca

if exists (select \* from dbo.sysobjects where id = object\_id(N'Imprumut') and OBJECTPROPERTY(id, N'IsView') = 1)

drop view Imprumut

GO

use Biblioteca

go

create view Imprumut

as

select ci.nume,ci.prenume,ci.cnp,c.titlu,c.autor,c.cota,convert(char(8),i.dataImprumut,4) as data\_imprumut,

convert(char(8),i.dataLimita,4) as data\_limita,i.esteAdusa AS [Imprumut restant]

from cititori as ci

inner join imprumuturi as i

on ci.id\_cititor=i.id\_cititor

inner join carti as c

on c.id\_carte=i.id\_carte

where ((i.dataLimita < getdate()) and (i.esteAdusa=0))

go

SELECT \* FROM Imprumut

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IF EXISTS ( SELECT name FROM sysobjects

WHERE type = 'TR' AND name = 'Trigger\_impr' )

DROP TRIGGER Trigger\_impr

GO

CREATE TRIGGER Trigger\_impr

ON Imprumuturi

FOR DELETE

AS

IF (SELECT esteAdusa FROM Deleted)=0

BEGIN

RAISERROR('Nu puteti sterge imprumutul deoarece cartea nu a fost adusa!!',16,1)

ROLLBACK TRANSACTION

END

go

SELECT name FROM sysobjects

WHERE type = 'TR'

ORDER BY type, name

GO

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USE Biblioteca

EXEC sp\_addumpdevice 'disk','Bibliotecabak','d:\date\Biblioteca.bak'

BACKUP DATABASE Biblioteca

TO Bibliotecabak