Seminar 6 baze

shared and exclusive locks (most important)

I. customerID clustered int=dex created=> b+tree structure sorted by customerID

1. read uncommitted (weakest isolation level) tries to change/update a row => yes requires lock

under any isolation level!!

city=timisoara, T1 reads timisoara, in t2 we ask for exclusive lock (and we get it) =>cluj, T1 unexclusive lock (we dint get it cause t2 holds exclusive lock, in t2 we release exclusive lockand city=Timisoara, t1 city=Bucuresti and we commit => C. Bucuresti

2.t1 read com (ehrn we get a shared lock is released at the end of the transaction)

t2 repeatable read

city=timisoara, t1 asking for shared lock (we get it) and we release the lock, in t2 we ask for exclusive lock we get it =>clj, t1 ask for lock excl, we don’t get it, t2 rollback excl lock released => timisoara, t1=exclusive lock =>bucuresti => C. Bucuresti

3. t1 repeatable table

t2 read uncom

a. False (wil be hold until the end of the transaction)

b. True

c. True

d. True

II. 1 sql script that creates te corresp. relational data model. users-page many to many,

Users[UserID, uname, city, dob]

Likes[UserID, PageID, ldate]

Pages[PageID, pname, ..., CategoryID]

Categories[CategoryID, cname, cdescription]

Posts[PostID, pdate, ptext, shares, UserID]

Comment anonymous => not stored for users ubt for post (flag bc its top comment)

Comments[CommentID, ctest, cdate, topcom, PostID]

use examdb

go

drop table comments

drop table likes

drop table posts

drop table pages

drop table categories

drop table users

go

create table users

(userID int primary key identity(1,1),

uname varchar(50),

city varchar(50),

dob date)

create table categories

(categoryID int primary key identity(1,1),

cname varchar(50),

cdescription varchar(50))

create table pages

(pageID int primary key identity(1,1),

pname varchar(50),

categoryID int references categories(categoryID))

create table posts

(pastID int primary key identity(1,1),

pdate date,

ptext varchar(50),

shares int,

userID int references users(userID))

create table likes

(paegeID int references pages(pageID),

userID int references users(userID),

ldate date,

primary key(userID, pageID))

create table comments

(commentID int primary key identity(1,1),

cdate date,

ctext varchar(50),

topcom bit,

postID int references posts(postID))

2. lab1 (fara lab2!! fara fisier de configurare)

SqlConnection dbConn;

Dataset ds;

SqlDataAdapter daUsers, daPosts;

//to automatically generate insert update del =>comm builder

SqlCommandBuilder cbPosts;

BindingSource bsUsers, bsPosts;

//event handler for the form’s load event; doubleclick on the form

dbConn = newSqlsConnection(“Data Source = myServer; Initial Catalog = myDB; Integrated Security = true”);

ds = new DataSet();

daUsers = new SqlDataAdapter(“select \* from users”, dbConn); //only display them, noneed to delete modify them => no need for anything else

daPosts = new SqlDataAdapter(“select \* from posts”, dbConn);

cbPosts = new SqlCommandBuilder(daPosts);

//bring in the data => we call the fill (checks if the connection is open, if not it opens it)

daUsers.Fill(ds, “users”); //inside the “” is the name of the tables that will be created and filled with the data from select

daPosts.Fill(ds, “posts”);

DataRelation dr = new DataRelation(“fk\_posts\_users”, ds.Tables[“Users”].Columns[“userID”], ds.Tables[“Posts”].Columns[“userID”]); //parent column and child column (userId in user and userID in posts)

ds.Relations.Add(dr);

//databinding

bsUsers = new BindingSource();

bsUsers.DataSource = ds; //parent

bsUsers.DataMember = “users”; //name of the local data table (fill)

bsPosts = new BindingSource();

bsPosts.DataSource = bsUsers;

bsPosts.DataMember = “fk\_posts\_users” //we need a relation between our tables (retireve all posts for which userID=x)

dgvUsers.DataSource = bsUsers;

dgvPosts.DataSource = bsPosts;

//event handler of click event of save changes button

daPosts.Update(ds, “posts”);

3. first seminar?

T1 T2

begin tran

select \* form users where userID =1

update users set uname=”smth” where userID=1

commit tran

select \* form users where userID =1

commit tran

t1 read com => ask for shared lock and we get it and releasing it, t2 try to get exclusive I get it I can change it and I commit and rls lock, t1 same thing we get

I -3p II 2,2,2p