Practice Quiz 2

\*This practice test uses the “DML Database” on the DMIT 1508 Moodle - Found under the DML Section. The inserted data was added and can be found in ‘Appendix 2’\*

Try and finish with about a 45 minute time limit, and don’t use your notes until you are done and marking. It will help simulate the real quiz! Any questions or comments can be emailed to [AricS@Nait.ca](mailto:AricS@Nait.ca)

1. Add the following constraints to the existing table definitions.

* Album suggested price is positive
* Album Title is “Unknown”

Constraint ck\_SuggestedPricePositive Check (SuggestedPrice > 0)

Constraint df\_UnknownTitle default ‘Unknown’

1. Create an Index for the foreign key

Create nonclustered Index IX\_AlbumID on Tracks(AlbumID)

1. Use an alter table statement to add a default of $10 for the Suggested Price in the album table

Alter Table Album

Add

Constraint df\_SuggestedPrice default 10 for SuggestedPrice

1. Select all the artist names

Select Artist From Album

1. Select the 3rd track of every album

Select Title From Tracks

Where TrackID = 3

1. Select the Album Titles and the total length of the album

Select Album.Title, Sum(Length) as ‘Album Length’

From Album

Inner Join Tracks on Album.AlbumID = Tracks.AlbumID

Group By Album.Title

1. Create a view called ArtistAlbumFirstTrack that has the artist name, the album title, first track

Create View ArtistAlbumFirstTrack

As

Select Artist, Album.Title as ‘Album’, Tracks.Title as ‘First Track’

From Album

Inner Join Tracks on Album.AlbumID = Tracks.AlbumID

Where TrackID = 1

1. Select the artist(s) that don’t have an album in the database without a join

Select Artist

From Album

Where AlbumID not in (Select AlbumID from Tracks)

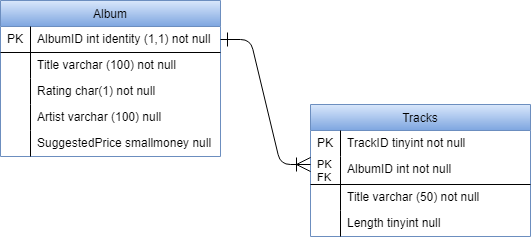
1. Fix the typo in the 6th album. It’s by Pink Floyd.

Update Album

Set Artist = ‘Pink Floyd’

Where AlbumID = 6

# Appendix 1 - Entity Relationship Diagram



# Appendix 2 – Code

This is the create table code (from DMIT 1508 Moodle) and the insert data (created by Aric Smith)

--Create Database Artists

Use [Artists]

drop table tracks

drop table album

Create Table Album

(

AlbumID int identity (1,1) not null constraint pk\_album primary key clustered,

Title varchar (100) not null,

Rating char(1) not null

constraint ck\_ratingrange check(Rating between 0 and 5)

constraint df\_0rating default 0,

Artist varchar (100) null,

SuggestedPrice smallmoney null

)

Create Table Tracks

(

TrackID tinyint not null,

AlbumID int not null

constraint fk\_TracksToAlbum references Album(AlbumID),

Title varchar (50) not null,

Length tinyint null,

constraint pk\_Tracks primary key clustered (TrackID, AlbumID)

)

Insert into Album (Title, Rating, Artist, SuggestedPrice)

Values ('A Matter of Life and Death', 5, 'Iron Maiden', 8)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (1, 1, 'Different World', 4)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (2, 1, 'These Colours Dont Run', 7)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (3, 1, 'Brighter Than A Thousand Suns', 9)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (4, 1, 'The Pilgrim', 5)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (5, 1, 'The Longest Day', 8)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (6, 1, 'Out Of The Shadows', 6)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (7, 1, 'The Reincarnation of Benjamin Breeg', 7)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (8, 1, 'For The Greater Good of God', 9)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (9, 1, 'Lord Of Light', 7)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (10, 1, 'The Legacy', 9)

Insert into Album (Title, Rating, Artist, SuggestedPrice)

Values ('The Wreck of the Powhatan and Other Tales', 4, 'Rainmaker', 5)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (1, 2, 'My Blood', 4)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (2, 2, 'Ultraviolet', 3)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (3, 2, 'In My Mind', 5)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (4, 2, 'Steel And Diamonds', 6)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (5, 2, 'Unhinged', 5)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (6, 2, 'Rain', 5)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (7, 2, 'Childhoods End', 6)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (8, 2, '?', 5)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (9, 2, 'Drive All Night', 6)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (10, 2, 'The Wreck of the Powhatan', 6)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (11, 2, 'On This Road', 6)

Insert into Album (Title, Rating, Artist, SuggestedPrice)

Values ('Firepower', 5, 'Judas Priest', 12)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (1, 3, 'Firepower', 3)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (2, 3, 'Lightning Strike', 3)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (3, 3, 'Evil Never Dies', 4)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (4, 3, 'Never The Heroes', 4)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (5, 3, 'Necromancer', 4)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (6, 3, 'Children of the Sun', 4)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (7, 3, 'Guardians', 1)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (8, 3, 'Rising From Ruins', 5)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (9, 3, 'Flame Thrower', 5)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (10, 3, 'Spectre', 4)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (11, 3, 'Traitors Gate', 6)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (12, 3, 'No Surrender', 3)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (13, 3, 'Lone Wolf', 5)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (14, 3, 'Sea of Red', 6)

Insert into Album (Title, Rating, Artist, SuggestedPrice)

Values ('Infinite', 4, 'Deep Purple', 10)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (1, 4, 'Time for Bedlam', 5)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (2, 4, 'Hip Boots', 3)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (3, 4, 'All I Got Is You', 5)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (4, 4, 'One Night in Vegas', 3)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (5, 4, 'Get Me Outta Here', 4)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (6, 4, 'The Suprising', 6)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (7, 4, 'Johnnys Band', 4)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (8, 4, 'On Top of the World', 4)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (9, 4, 'Birds of Prey', 6)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (10, 4, 'Roadhouse Blues', 6)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (11, 4, 'Paradise Bar', 4)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (12, 4, 'Uncommon Man (Instrumental Version)', 7)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (13, 4, 'Hip Boots (Ian Paice Recording', 4)

Insert into Album (Title, Rating, Artist, SuggestedPrice)

Values ('What Happens Next', 5, 'Joe Satriani', 12)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (1, 5, 'Energy', 3)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (2, 5, 'Catbot', 4)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (3, 5, 'Thunder High On The Mountain', 5)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (4, 5, 'Cherry Blossoms', 4)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (5, 5, 'Righteous', 4)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (6, 5, 'Smooth Soul', 4)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (7, 5, 'Headrush', 4)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (8, 5, 'Looper', 4)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (9, 5, 'What Happens Next', 4)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (10, 5, 'Super Funky Badass', 8)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (11, 5, 'Invisible', 4)

Insert into Tracks (TrackID, AlbumID, Title, Length)

Values (12, 5, 'Forever and Ever', 4)

Insert into Album (Title, Rating, Artist, SuggestedPrice)

Values ('Dark Side of the Moon', 5, 'Pink Floid', 7)