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CS 340 Databases
Section 401
Group # 31
Project Title: Institute of Curiosity Exhibit Database

URL: <http://flip1.engr.oregonstate.edu:3314/> (please connect to VPN)
Project Step 7 (Portfolio Assignment)

Summary of feedback and changes made to this Project from initial version until now (1page max):

Based on the feedback we received from our peers, and working on the database project throughout this quarter, the changes we made to the Institute of Curiosity Project from the initial version to now include: 1) Combining the Exhibits and Wings entities into one entity and calling it Exhibits because they had 1:1 relationships, 2) Creating an Employee_Exhibits table for the M:M relationships that represents scheduling at the museum, 3) Condensing only the necessary attributes for each entity, 4) Adding an ID attribute to the Employee_Exhibits entity to uniquely identify that employees can work in many wings and wings can have many employees, 5) Updating to make Employees to Employee_Exhibits and Artifact to Exhibits NULLable. Each artifact can be in 0 or 1 wing (artifact is in a wing, or is not - for example, if it's in storage). Additionally, an employee can work in 0 or many exhibits, depending on their Position - for example, if they are in admin or work at the front desk, 6) adding ON DELETE CASCADE for the FK_EmployeeID foreign key so when an employee gets deleted, necessary rows get deleted from the Employee_Exhibits (Scheduling) table, and 7) Updating the Schema to reflect that the FK_WingID from artifacts points to the Exhibits table.

From the initial version to the most recent version, we found creating a database with an interactive UI to be an iterative process. The major changes we implemented were filtering for the exhibits table, adding a scheduling table as the M:M relationship with employees and exhibits, and displaying the tables with the update and delete buttons for each row. Prior to getting feedback on our employee_exhibits table, we did not include attributes to it. With the help from our peers, they helped us understand that the table is not considered an entity without attributes. Our final version reflects the addition of a M:M relationship. Understanding how the back end works gives up a greater appreciation for how databases are designed from start to finish.

Updated Project Outline, Database Outline, ERD, and Schema:

Overview

The Institute of Curiosity in Rome is one of the most visited museums in all of Europe. Getting approximately 6 million visitors a year, this museum houses a unique collection of artifacts that consists of sculptures and paintings from all over the world. The Institute of Curiosity has two established exhibits that are permanent and displayed year-round: The Renaissance Exhibit and the Roman Empire Exhibit, and is now getting ready for their new spring exhibit. Each exhibit consists of four wings. The museum needs to organize the exhibits and all the artifacts it will have within these wings. This database-driven website will keep track of artifact information and staffing as the museum organizes where the artifacts will be displayed.

Database Outline

Employees: Keeps track of the employees who work in the various exhibits and wings

- EmployeeID - Int, Primary Key, auto_increment, not Null, Unique
 - Unique ID associated with each employee
- Fname - VarChar(255), not Null
 - First name of employee
- Lname - VarChar(255), not Null
 - Last name of employee
- Position - varVarChar(255), not Null
 - What their job is
- *Relationship* - a M:M relationship - Exhibits can have multiple employees, an employee can work in multiple exhibits
- (Added) *Relationship*: 0:M - Employee can work in 0 or many exhibits, depending on their Position - for example, if they are in admin or work at the front desk.

Artifacts: Keeps track of the artifacts in the Museums possession

- FK_WingID - Foreign Key, not NULL
 - Associates an artifact with a wing of the exhibit
- ArtifactID - Int, Not NULL, Primary Key, Unique
 - Unique ID number associated with an artifact
- Name - VarChar(255)
 - The name or title of the piece (if it's art or an artifact)
 - E.g. "Starry Night"
- ArtistOrOrigin - Varchar(255)
 - The artists or origin of the piece
 - E.g. "Bone Tool ca. 1600 B.C.E."
- Year - Date
 - The Year the piece was created or the estimated origin
 - E.G. 1744

- Price - Decimal
 - The value of the artifact
 - E.g. \$14,500
- *Relationship*: 1:M - each wing can have many artifacts
- (Added) *Relationship*: 0:1 - each artifact can be in 0 or 1 wing (artifact is in a wing, or is not - for example, if it's in storage)

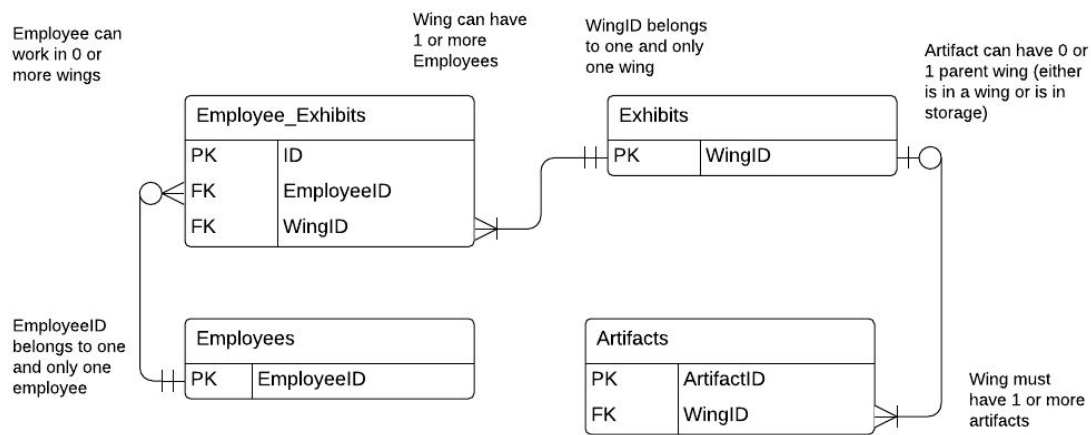
Exhibits:

- WingID - Int, Not NULL, Primary Key, Unique
 - Unique ID number associated with a wing in the museum
- ExhibitName: VarChar(255), Null
 - Ties back to the exhibit the wing is associated with
- WingName: VarChar(255)
 - Name of the wing in the exhibit
 - E.g. "The West Wing"
- ThemeEra: VarChar(255)
 - The theme or era of the wing
 - E.g. "Renaissance Paintings" or "Prehistoric Human Tools"
- NumberOfPieces: Integer
 - Sums number of pieces assigned to wing to ensure each wing has approximately the same amount of things to see
- *Relationship*: 1:M with Artifacts: each exhibit has many artifacts, but each artifact belongs to only 1 parent wing

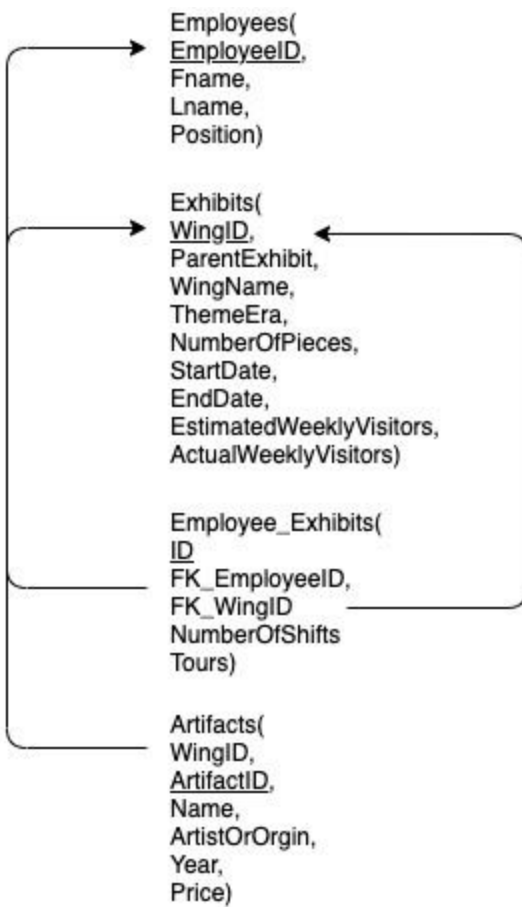
Employee_Exhibits: For use with the Exhibit-Employee M:M relationship

- ID: Primary key, not Null
- FK_EmployeeID: Foreign key, not Null
- FK_WingID - Foreign key, not Null
- (Added) Number of Shifts, Int, null
- (Added) Tours, VarChar(255), null

Entity-Relationship Diagram



Schema



UI Screen Captures

READ/DISPLAY Exhibits page

All exhibits are displayed on the exhibits page

Exhibit Staffing

WingID	EmployeeID	Position	ExhibitName	WingName	Update	Delete
1	1	Coordinator	Spring	North	<button>Update</button>	<button>Delete</button>

Exhibit Artifacts

ExhibitName	WingName	ArtifactName	ArtistOrOrigin	Year	Price	Update	Delete
Roman	Ace	Scale model of Imperial Rome	Interactive Display			<button>Update</button>	<button>Delete</button>
Roman	Ace	Edict on Maximum Price	Emperor Diocletian, Rome	305 ACE	17500	<button>Update</button>	<button>Delete</button>
Roman	Ace	Roman Gold Coins	Roman Empire	78 ACE	5800	<button>Update</button>	<button>Delete</button>

FILTER Exhibits by Spring Exhibit

Choose Exhibit

Filter by Exhibit Name

Spring

Filter

Exhibit Staffing

WingID	EmployeeID	Position	ExhibitName	WingName	Update	Delete
1	1	Coordinator	Spring	North	<button>Update</button>	<button>Delete</button>
3	1	Coordinator	Spring	South	<button>Update</button>	<button>Delete</button>
4	12	Coordinator	Spring	West	<button>Update</button>	<button>Delete</button>

Exhibit Artifacts

READ/DISPLAY Employees page

All employees are displayed on the employees page

All Employees

EmployeeID	First Name	Last Name	Position	Update	Delete
1	John	Smith	Coordinator	Update	Delete
12	Bob	Smith	Coordinator	Update	Delete
13	Dwight	Schrute	Salesman	Update	Delete

UPDATE Employees page

Update "Pam Halpert" Employee Info:

First Name	Last Name	Position
<input type="text" value="Pamela"/>	<input type="text" value="Halpert"/>	<input type="text" value="Receptionist"/>
<input type="button" value="Update"/>		

All Employees

EmployeeID	First Name	Last Name	Position	Update	Delete
1	Bob	Smith	Coordinator	Update	Delete
2	Dwight	Schrute	Salesman	Update	Delete
14	Pamela	Halpert	Receptionist	Update	Delete

DELETE EMPLOYEE

All Employees

EmployeeID	First Name	Last Name	Position	Update	Delete
1	John	Smith	Coordinator	Update	Delete
12	Bob	Smith	Coordinator	Update	Delete
13	Dwight	Schrute	Salesman	Update	Delete

READ/DISPLAY Employee_Exhibits (Scheduling) page

Exhibit Staffing

StaffID	EmpID	First Name	Last Name	Wing Name	Exhibit Name	Num. of Shifts	Tour Info	Update	Delete
1	1	John	Smith	North	Spring	3	Coordinator	Update	Delete
9	1	John	Smith	South	Spring	1	Tour Guide	Update	Delete
10	0	Pamela	Halpert	Spade	Roman	3	Cover's Dwight's shifts	Update	Delete
5	13	Dwight	Schrute	Fire	Renaissance	5	Salesman	Update	Delete

CREATE/INSERT Schedule

Create Michael Scott schedule.

Add Scheduling:

Employee

Michael Scott

Exhibit / Wing

Spring / North

Number of Shifts:

NumberOfShifts

Tours:

Tours

Submit

Exhibit Staffing

StaffID	EmpID	First Name	Last Name	Wing Name	Exhibit Name	Num. of Shifts	Tour Info	Update	Delete
1	1	John	Smith	North	Spring	3	Coordinator	Update	Delete
9	1	John	Smith	South	Spring	1	Tour Guide	Update	Delete
5	13	Dwight	Schrute	Fire	Renaissance	5	Salesman	Update	Delete
11	0	Michael	Scott	Green	Winter	10	Manage people	Update	Delete

DELETE Single Schedule

Michael Scott is deleted.

Exhibit Staffing

StaffID	EmpID	First Name	Last Name	Wing Name	Exhibit Name	Num. of Shifts	Tour Info	Update	Delete
1	1	John	Smith	North	Spring	3	Coordinator	Update	Delete
9	1	John	Smith	South	Spring	1	Tour Guide	Update	Delete
5	13	Dwight	Schrute	Fire	Renaissance	5	Salesman	Update	Delete

READ/DISPLAY Artifacts page

Exhibit Artifacts

ExhibitName	WingName	ArtifactName	ArtistOrOrigin	Year	Price	Update	Delete
Roman	Ace	Scale model of Imperial Rome	Interactive Display			<button>Update</button>	<button>Delete</button>
Roman	Ace	Edict on Maximum Price	Emperor Diocletian, Rome	305 ACE	17500	<button>Update</button>	<button>Delete</button>
Roman	Ace	Roman Gold Coins	Roman Empire	78 ACE	5800	<button>Update</button>	<button>Delete</button>
Roman	Ace	Young lover	Roman Empire	130 ACE	12500	<button>Update</button>	<button>Delete</button>
Roman	Ace	Roman Dagger	Roman Empire	22 ACE	3500	<button>Update</button>	<button>Delete</button>
Roman	Spade	Mona Lisa	Europe	180 ACE	18000	<button>Update</button>	<button>Delete</button>

CREATE/INSERT Artifacts page

Institute of Curiosity Home Exhibits Employees Scheduling Artifacts

Add Artifact

Name

Mona Lisa

Artist or Origin

Europe

Year

180 ACE

Price

18000

Wing Name

Spade

Submit

UPDATE Artifacts page

Update "Scale model of Imperial Rome" Artifact Info:

Name

Scale model of Imperial Rome

Price

7500

Year

180 ACE

Wing Location

North

Update

Exhibit Artifacts

ExhibitName	WingName	ArtifactName	ArtistOrOrigin	Year	Price	Update	Delete
Spring	North	Scale model of Imperial Rome	Interactive Display	180 ACE	7500	<div>Update</div>	<div>Delete</div>
Roman	Ace	Edict on Maximum Price	Emperor Diocletian, Rome	305 ACE	17500	<div>Update</div>	<div>Delete</div>

DELETE Artifacts page

Roman	Heart	Mummy of Isis	The Malibu Painter	85 ACE	1300	<div>Update</div>	<div>Delete</div>
Roman	Heart	Painting of an Old Woman	laia	100 ACE	125500	<div>Update</div>	<div>Delete</div>
Roman	Heart	Self Portrait	laia	105 ACE	50000	<div>Update</div>	<div>Delete</div>

Roman	Heart	Mummy of Serapis	The Malibu Painter	78 ACE	5500	<div>Update</div>	<div>Delete</div>
Roman	Heart	Mummy of Isis	The Malibu Painter	85 ACE	1300	<div>Update</div>	<div>Delete</div>
Roman	Heart	Painting of an Old Woman	laia	100 ACE	125500	<div>Update</div>	<div>Delete</div>