Merrick, David

CS 275

27 April, 2012

<u>Assignment 3</u>

AIRPORT

Airport_code (INT) NOT NULL	City (VARCHAR(40)) NOT NULL	State (VARCHAR(2)) NOT NULL	Name (VARCHAR (40)) NOT NULL

AIRPLANE_TYPE

Type_name (VARCHAR (40)) NOT NULL	Max_seats (INT) NOT NULL	Company (VARCHAR(40)) NOT NULL	CAN_LAND (INT) NOT NULL

AIRPLANE

Airplane_id (INT) NOT NULL	Total_no_of_seats (INT) NOT NULL	Type (VARCHAR (40)) NOT NULL

FLIGHT

Number (INT) NOT NULL	Airline (VARCHAR (40)) NOT NULL	Weekdays (VARCHAR(75)) NOT NULL

FARE

Code (INT) NOT NULL	Restrictions (TEXT)	Amount (DECIMAL(4,2)) >= $0	Flight_number (INT) NOT NULL

RESERVATION

Customer_name (VARCHAR(40)) NOT NULL	Cphone (INT(11)) NOT NULL	flight_leg_instance (INT) NOT NULL

SEAT

Seat_no (INT) NOT NULL	Customer_name (VARCHAR(40)) NOT NULL

FLIGHT_LEG

Leg_no (INT) NOT NULL	Flight_number (INT) NOT NULL	Departure Airport	Arrival Airport

LEG_INSTANCE

Dep_time (DATE) NOT NULL	Arr_time (DATE) NOT NULL	Date (DATE) NOT NULL	Airport_code (INT) NOT NULL	Airplane_id (INT) NOT NULL	No_of_avai ts (INT) NOT

2. You will be graded on being able to use the PHPMyAdmin web database.

You will import .sql files/scripts, create/populate your database with tables, and save

.sql files/scripts.

P:

Server: ONID Database Server ▶ Database: merrickd-db ▶ Table: p

Browse | Structure | SQL | Search | Insert | Export | Import | Operations | Empty | Drop

	Field	Type	Collation	Attributes	Null	Default	Extra	Action						
☐	pno	char(6)	latin1_swedish_ci		No			🔢	✏	✗	🔑	ⓤ	📝	📄
☐	pname	char(20)	latin1_swedish_ci		No			🔢	✏	✗	🔑	ⓤ	📝	📄
☐	color	char(6)	latin1_swedish_ci		Yes	NULL		🔢	✏	✗	🔑	ⓤ	📝	📄
☐	weight	smallint(6)			Yes	NULL		🔢	✏	✗	🔑	ⓤ	📝	📄
☐	city	char(15)	latin1_swedish_ci		Yes	NULL		🔢	✏	✗	🔑	ⓤ	📝	📄

Sort by key: None

			pno	pname	color	weight	city
☐	✏	✗	p1	nut	red	12	London
☐	✏	✗	p2	bolt	green	17	Paris
☐	✏	✗	p3	screw	blue	17	Rome
☐	✏	✗	p4	screw	red	14	London
☐	✏	✗	p5	cam	blue	12	Paris
☐	✏	✗	p6	cog	red	19	London

S:

Server: ONID Database Server ▶ Database: merrickd-db ▶ Table: s

Browse | Structure | SQL | Search | Insert | Export | Import | Operations | Empty | Drop

	Field	Type	Collation	Attributes	Null	Default	Extra	Action						
☐	sno	char(5)	latin1_swedish_ci		No			🔢	✏	✗	🔑	ⓤ	📝	📄
☐	sname	char(20)	latin1_swedish_ci		No			🔢	✏	✗	🔑	ⓤ	📝	📄
☐	status	smallint(6)			Yes	NULL		🔢	✏	✗	🔑	ⓤ	📝	📄
☐	city	char(15)	latin1_swedish_ci		Yes	NULL		🔢	✏	✗	🔑	ⓤ	📝	📄

Sort by key: None

			sno	sname	status	city
☐	✏	✗	s1	Smith	20	London
☐	✏	✗	s2	Jones	10	Paris
☐	✏	✗	s3	Blake	30	Paris
☐	✏	✗	s4	Clark	20	London
☐	✏	✗	s5	Adams	30	Athens

SP:

Browse | Structure | SQL | Search | Insert | Export | Import | Operations | Empty | Drop

	Field	Type	Collation	Attributes	Null	Default	Extra	Action
☐	**sno**	char(5)	latin1_swedish_ci		No			
☐	**pno**	char(6)	latin1_swedish_ci		No			
☐	**qty**	int(11)			No			

Sort by key: None

			sno	pno	qty
☐	✎	✕	s1	p1	300
☐	✎	✕	s1	p2	200
☐	✎	✕	s1	p3	400
☐	✎	✕	s1	p4	200
☐	✎	✕	s1	p5	100
☐	✎	✕	s1	p6	100
☐	✎	✕	s2	p1	300
☐	✎	✕	s2	p2	400
☐	✎	✕	s3	p2	200
☐	✎	✕	s4	p2	200
☐	✎	✕	s4	p4	300
☐	✎	✕	s4	p5	400

3. Using the COMPANY database we've been discussing in class, take the

ER diagram and conceptual schema and write/generate a .sql script that creates the

tables capturing all the information from the design. **NOTE: Make sure you use the

InnoDB storage engine, instead of the default MyISAM. In addition, write/generate a

.sql script (or set of scripts) that populates the tables with the relational state below.

```sql
-- phpMyAdmin SQL Dump
-- version 2.11.9.4
-- http://www.phpmyadmin.net
--
-- Host: oniddb
-- Generation Time: Apr 24, 2012 at 03:11 PM
-- Server version: 5.1.49
-- PHP Version: 5.2.6-1+lenny12

SET SQL_MODE="NO_AUTO_VALUE_ON_ZERO";


/*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
/*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
/*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;
/*!40101 SET NAMES utf8 */;

--
-- Database: `merrickd-db`
--

-- --------------------------------------------------------

--
-- Table structure for table `DEPARTMENT`
--

CREATE TABLE IF NOT EXISTS `DEPARTMENT` (
  `Dname` varchar(15) NOT NULL,
  `Dnumber` int(11) NOT NULL,
  `Mgr_ssn` char(9) NOT NULL,
  `Mgr_start_date` date DEFAULT NULL,
  PRIMARY KEY (`Dnumber`),
  UNIQUE KEY `Dname` (`Dname`),
  KEY `Mgr_ssn` (`Mgr_ssn`)
) ENGINE=MyISAM DEFAULT CHARSET=latin1;

--
-- Dumping data for table `DEPARTMENT`
--

INSERT INTO `DEPARTMENT` (`Dname`, `Dnumber`, `Mgr_ssn`, `Mgr_start_date`) VALUES
('Headquarters', 1, '888665555', '1981-06-19'),
('Administration', 4, '987654321', '1995-01-01'),
('Research', 5, '333445555', '1988-05-22');

-- --------------------------------------------------------

--
-- Table structure for table `DEPENDENT`
--

CREATE TABLE IF NOT EXISTS `DEPENDENT` (
```

```sql
  `Essn` char(9) NOT NULL,
  `Dependent_name` varchar(15) NOT NULL,
  `Sex` char(1) DEFAULT NULL,
  `Bdate` date DEFAULT NULL,
  `Relationship` varchar(8) DEFAULT NULL,
  PRIMARY KEY (`Essn`,`Dependent_name`)
) ENGINE=MyISAM DEFAULT CHARSET=latin1;


--
-- Dumping data for table `DEPENDENT`
--

INSERT INTO `DEPENDENT` (`Essn`, `Dependent_name`, `Sex`, `Bdate`, `Relationship`) VALUES
('123456789', 'Alice', 'F', '1988-12-30', 'Daughter'),
('123456789', 'Elizabeth', 'F', '1967-05-05', 'Spouse'),
('123456789', 'Michael', 'M', '1988-01-04', 'Son'),
('333445555', 'Alice', 'F', '1986-04-05', 'Daughter'),
('333445555', 'Joy', 'F', '1958-05-03', 'Spouse'),
('333445555', 'Theodore', 'M', '1983-10-25', 'Son'),
('987654321', 'Abner', 'M', '1942-02-28', 'Spouse');


-- --------------------------------------------------------


--
-- Table structure for table `DEPT_LOCATIONS`
--

CREATE TABLE IF NOT EXISTS `DEPT_LOCATIONS` (
  `Dnumber` int(11) NOT NULL,
  `Dlocation` varchar(15) NOT NULL,
  PRIMARY KEY (`Dnumber`,`Dlocation`)
) ENGINE=MyISAM DEFAULT CHARSET=latin1;

--
-- Dumping data for table `DEPT_LOCATIONS`
--

INSERT INTO `DEPT_LOCATIONS` (`Dnumber`, `Dlocation`) VALUES
(1, 'Houston'),
(4, 'Stafford'),
(5, 'Bellaire'),
(5, 'Houston'),
(5, 'Sugarland');


-- --------------------------------------------------------


--
-- Table structure for table `EMPLOYEE`
--

CREATE TABLE IF NOT EXISTS `EMPLOYEE` (
  `Fname` varchar(15) NOT NULL,
  `Minit` char(1) DEFAULT NULL,
```

```sql
  `Lname` varchar(15) NOT NULL,
  `Ssn` char(9) NOT NULL,
  `Bdate` date DEFAULT NULL,
  `Address` varchar(30) DEFAULT NULL,
  `Sex` char(1) DEFAULT NULL,
  `Salary` decimal(10,2) DEFAULT NULL,
  `Super_ssn` char(9) DEFAULT NULL,
  `Dno` int(11) NOT NULL,
  PRIMARY KEY (`Ssn`),
  KEY `Super_ssn` (`Super_ssn`),
  KEY `Dno` (`Dno`)
) ENGINE=MyISAM DEFAULT CHARSET=latin1;

--
-- Dumping data for table `EMPLOYEE`
--

INSERT INTO `EMPLOYEE` (`Fname`, `Minit`, `Lname`, `Ssn`, `Bdate`, `Address`, `Sex`, `Salary`, `Super_ssn`, `Dno`) VALUES
('John', 'B', 'Smith', '123456789', '1985-01-09', '731 Fondren, Houston, TX', 'M', 30000.00, '333445555', 5),
('Franklin', 'T', 'Wong', '333445555', '1955-12-08', '638 Voss, Houston, TX', 'M', 40000.00, '888665555', 5),
('Alicia', 'J', 'Zelaya', '999887777', '1968-01-19', '3321 Castle, Spring, TX', 'F', 25000.00, '987654321', 4),
('Jennifer', 'S', 'Wallace', '987654321', '1941-06-20', '291 Berry, Bellaire, TX', 'F', 43000.00, '888665555', 4),
('Joyce', 'A', 'English', '453453453', '1972-07-31', '5631 Rice, Houston, TX', 'F', 25000.00, '333445555', 5),
('Ramesh', 'K', 'Narayan', '666884444', '1962-09-15', '975 Fire Oak. Humble, TX', 'M', 38000.00, '333445555', 5),
('James', 'E', 'Borg', '888665555', '1937-11-10', '450 Stone, Houston, TX', 'M', 55000.00, 'NULL', 1),
('Ahmad', 'V', 'Jabbar', '987987987', '1969-03-29', '980n Dallas, Houston, Tx', 'M', 25000.00, '987654321', 4);

-- --------------------------------------------------------

--
-- Table structure for table `PROJECT`
--

CREATE TABLE IF NOT EXISTS `PROJECT` (
  `Pname` varchar(15) NOT NULL,
  `Pnumber` int(11) NOT NULL,
  `Plocation` varchar(15) DEFAULT NULL,
  `Dnum` int(11) NOT NULL,
  PRIMARY KEY (`Pnumber`),
  UNIQUE KEY `Pname` (`Pname`),
  KEY `Dnum` (`Dnum`)
) ENGINE=MyISAM DEFAULT CHARSET=latin1;

--
```

```sql
-- Dumping data for table `PROJECT`
--

INSERT INTO `PROJECT` (`Pname`, `Pnumber`, `Plocation`, `Dnum`) VALUES
('ProductX', 1, 'Bellaire', 5),
('ProductY', 2, 'Sugarland', 5),
('ProductZ', 3, 'Houston', 5),
('Computerization', 10, 'Stafford', 4),
('Reorganization', 20, 'Houston', 1),
('Newbenefits', 30, 'Stafford', 4);


-- --------------------------------------------------------

--
-- Table structure for table `WORKS_ON`
--

CREATE TABLE IF NOT EXISTS `WORKS_ON` (
  `Essn` char(9) NOT NULL,
  `Pno` int(11) NOT NULL,
  `Hours` decimal(3,1) NOT NULL,
  PRIMARY KEY (`Essn`,`Pno`),
  KEY `Pno` (`Pno`)
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

--
-- Dumping data for table `WORKS_ON`
--

INSERT INTO `WORKS_ON` (`Essn`, `Pno`, `Hours`) VALUES
('123456789', 1, 32.5),
('123456789', 2, 7.5),
('333445555', 2, 10.0),
('333445555', 3, 10.0),
('333445555', 10, 10.0),
('333445555', 20, 10.0),
('453453453', 1, 20.0),
('453453453', 2, 20.0),
('666884444', 3, 40.0),
('888665555', 20, 0.0),
('987654321', 20, 15.0),
('987654321', 30, 20.0),
('987987987', 10, 35.0),
('987987987', 30, 5.0),
('999887777', 10, 10.0),
('999887777', 30, 30.0);
```
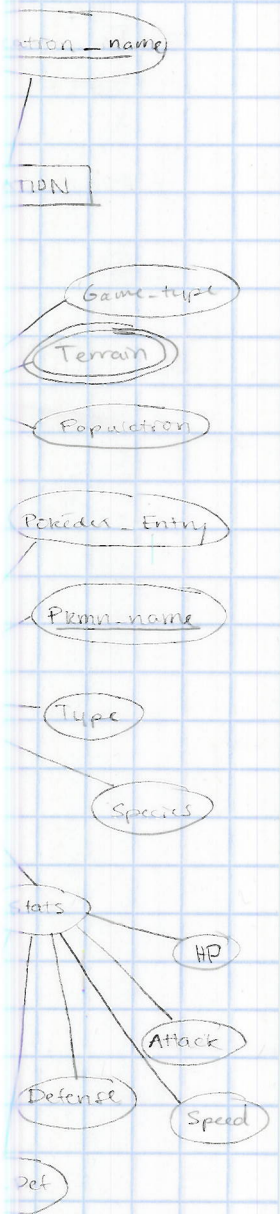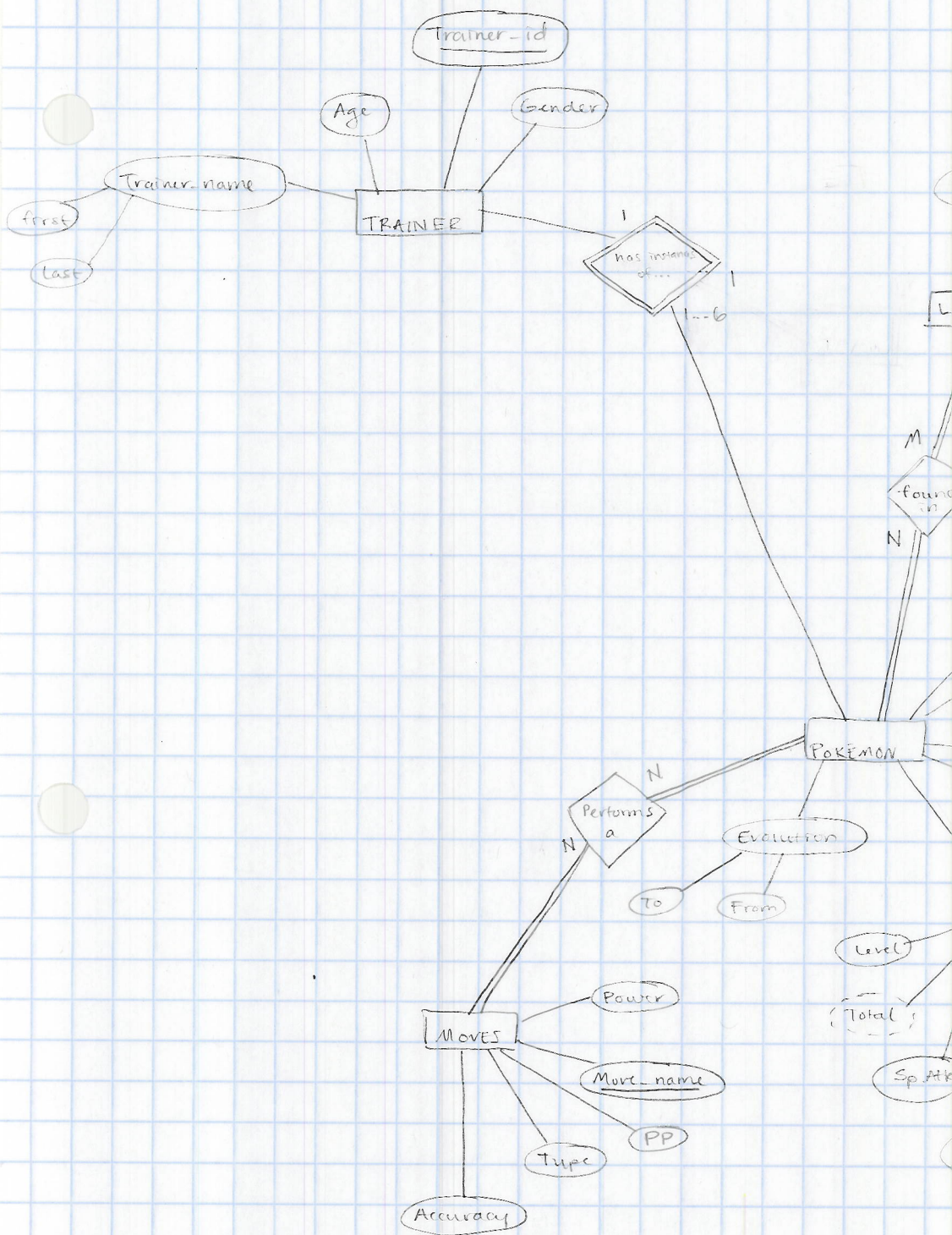
4. Propose a real-world database application for your term project, which

involves at least 3-4 different relation schema/table with each table having at least

four properties. You may work in teams of two or individually. Please specify

which of these options you are choosing in your proposal, and if you choose to work

as a team, then please submit your both team member's name.

I'm working with Heather Warman, and our project will be a database of Pokemon. We will have related tables for trainers, locations, Pokemon, and vital stats of the Pokemon.

Trainer_id

Age   Gender

Trainer_name   ...tion_name

first   TRAINER

last   has instance   L...TION
                       of....
                  1   1

                    1..6   Game_type

                                    M   Terrain

                                   found   Population
                                    in
                                    N   Pokeder_Entry

                                             Pkmn_name

                          POKEMON   Type
              N
     Performs   Species
     a   Evolution
N
          To   From   Stats

                                                      HP
                  Level
          Power   Attack
                 Total
MOVES   Sp Atk   Defense
                                                  Speed
          Move_name
                  PP   Def
     Type

Accuracy

POKEMON

Pkmn_name	Type	Species	Pokedex_entry	Evolves_to	Evolves_from	Moves	Hp	Attack	Defense	Sp_atk	Sp_def	Speed	Total

TEAM

Trainer_id	Pk1	Pk2	Pk3	Pk4	Pk5	Pk6

TRAINER

Trainer_name_first	Trainer_name_last	Age	Trainer_id	Gender

TYPE_EFFECTIVENESS

Weakness_to	Resistent_to	Immune_to	Type

MOVES

Move_name	Type	Power	Accuracy	Pp

LOCATION

Pkmn_name	Rate	Game_type	Terrain_found_in	Location_in	Location_name