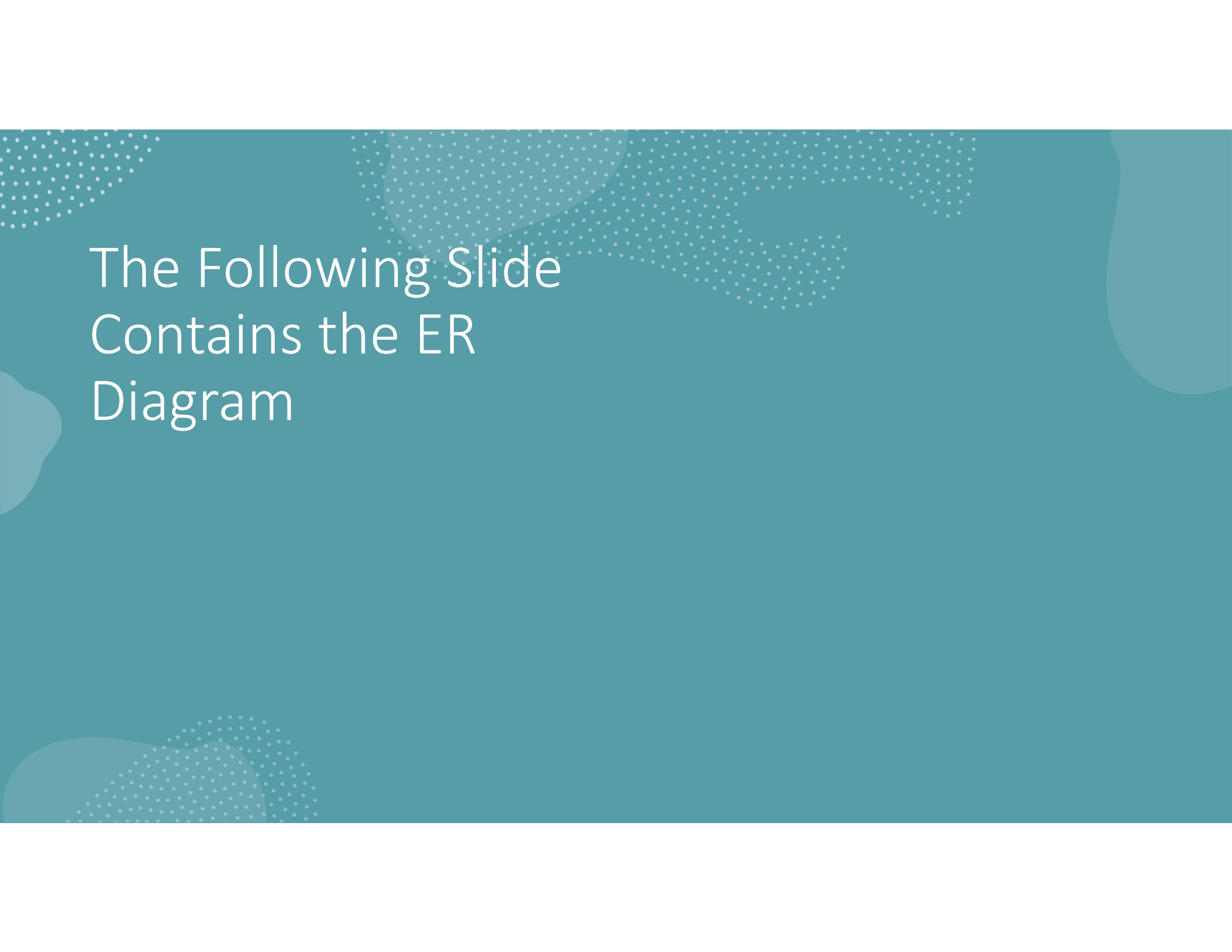


Introduction

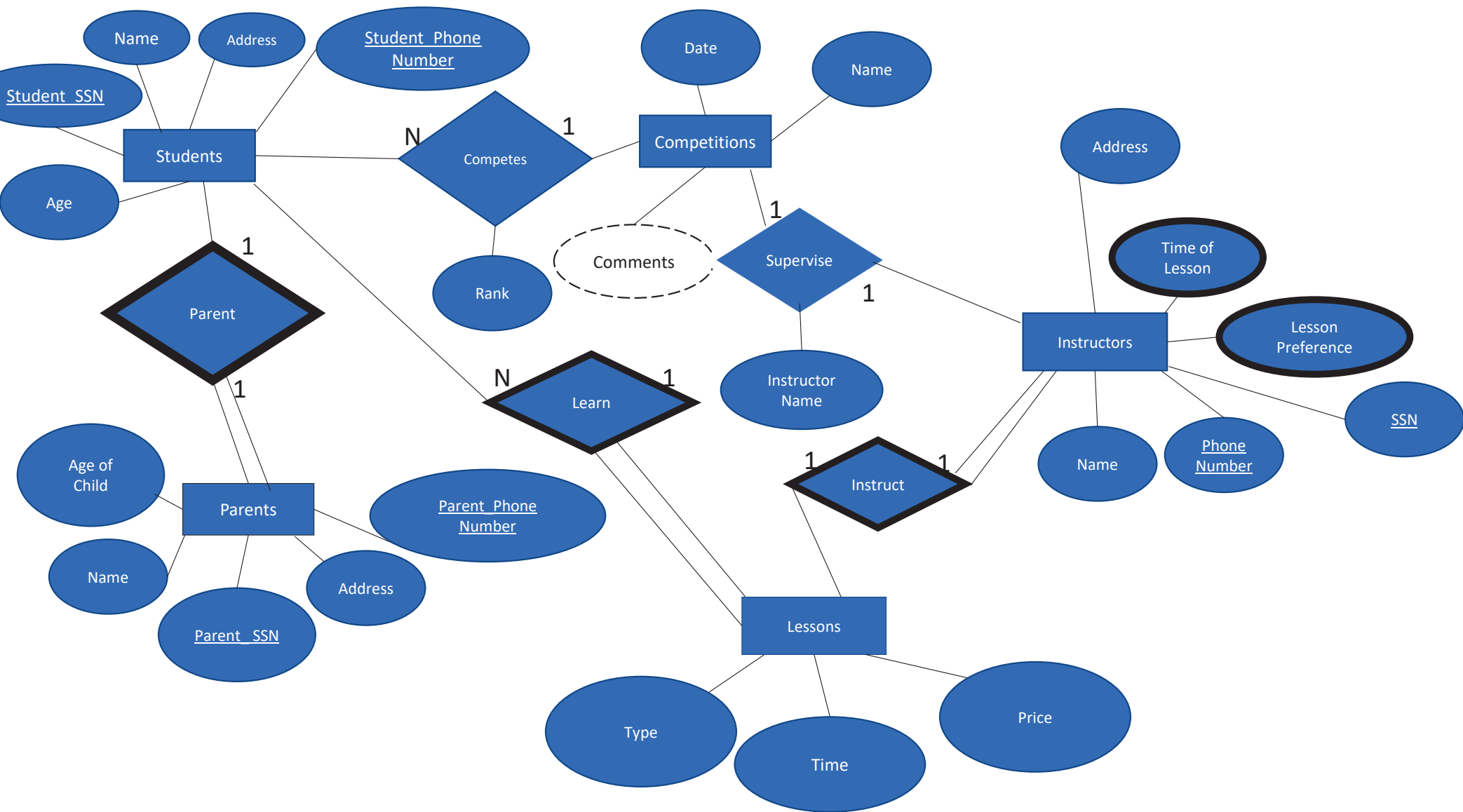
In this report we will examine the details of the database system I created used for Huntsville Music School.

Included is the Entity-Relationship (ER) diagram, to illustrate the database's design and concept.

To create a better visualization of the relational database schema the Entity Relationship (ER) conceptual schema diagram for the database will also be included.



The Following Slide
Contains the ER
Diagram



The Next Slides Contain the Mapping to the ER Diagram

This Will Include Two Slides

INSTRUCTORS

Name	Address	Phone Number	<u>SSN</u>	Time Of lesson	Lesson Preference	Super_SSN
------	---------	--------------	------------	----------------	-------------------	-----------

STUDENTS

Name	Address	<u>Student Phone Number</u>	Student_SSN	Age	Snumber
------	---------	-----------------------------	-------------	-----	---------

LESSONS

Type	Time	Price	<u>LSSN</u>	<u>Lnumber</u>
------	------	-------	-------------	----------------

COMPETITIONS

Name	Date	Comments	<u>Cssn</u>	<u>Cnumber</u>
------	------	----------	-------------	----------------

PARENTS

Name	Address	<u>Parent Phone Number</u>	<u>Parent SSN</u>	Age of Child
------	---------	----------------------------	-------------------	--------------

INSTRUCTORS: (Phone Number[fk], SSN[pk], Name, Address, Time Of Lesson, Lesson Preference, Super_SSN[fk])

STUDENTS: (Student_Phone Number[pk], Student_SSN[fk], Name, Address, Age, Snumber[fk])

LESSONS: (Type, Time, Price, LSSN[pk], Lnumber [pk])

COMPETITIONS: (Name, Date, Comments, CSSN[pk], Cnumber[pk])

PARENTS: (Parent_Phone Number[pk], Parent_SSN [pk], Name, Address, Age of Child)



We Will Now be Viewing Screenshots of
The Completed Database in SQL And The
SQL Code Itself.

Thank You

← → ↺ 🏠

🔖 Import bookmarks... 🔥 Getting Started 📁 School 🌐 athens.blackboard.co... 🆕 New Tab 📄 START HERE - Orientat... 📧 Mathway | Calculus Pr... 🖥️ Bb zoom_0(1).mp4 📄 Take Test: Module 4 In...

phpMyAdmin

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 students
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- +

 test

🔒 📄 localhost/phpmyadmin/index.php?route=/database/structure&db=huntsville+music+school

🔍 Server: 127.0.0.1 ➤ 📄 Database: huntville music school

📊 Structure

📄 SQL

🔍 Search

📄 Query

📄 Export

📄 Import

🔑 Operations

🔑 Privileges

🔑 Routines

🕒 Events

⚙️ Triggers

Filters

Containing the word:

	Table	Action	Rows	Type	Collation	Size	Overhead
<input type="checkbox"/>	competitions	★ 📄 Browse 📊 Structure 🔍 Search 📄 Insert 📄 Empty 🚫 Drop	0	InnoDB	utf8mb4_general_ci	32.0 KiB	-
<input type="checkbox"/>	instructors	★ 📄 Browse 📊 Structure 🔍 Search 📄 Insert 📄 Empty 🚫 Drop	0	InnoDB	utf8mb4_general_ci	48.0 KiB	-
<input type="checkbox"/>	lessons	★ 📄 Browse 📊 Structure 🔍 Search 📄 Insert 📄 Empty 🚫 Drop	0	InnoDB	utf8mb4_general_ci	32.0 KiB	-
<input type="checkbox"/>	parents	★ 📄 Browse 📊 Structure 🔍 Search 📄 Insert 📄 Empty 🚫 Drop	0	InnoDB	utf8mb4_general_ci	16.0 KiB	-
<input type="checkbox"/>	students	★ 📄 Browse 📊 Structure 🔍 Search 📄 Insert 📄 Empty 🚫 Drop	0	InnoDB	utf8mb4_general_ci	64.0 KiB	-
	5 tables	Sum	0	InnoDB	utf8mb4_general_ci	192.0 KiB	0 B

⬆️ ☐ Check all

With selected:

▼

🖨️ Print

📖 Data dictionary

Create new table

Table name

Number of columns

4

Create

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New

department problem 2

horse racing

huntsville music school

New

competitions

instructors

lessons

parents

students

information_schema

mysql

performance_schema

phpmyadmin

test

BrowseStructureSQLSearchInsertExportImportPrivilegesOperationsTrackingTriggers

Table structureRelation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1 Name	varchar(15)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	2 Address	varchar(30)	utf8mb4_general_ci		Yes	NULL			Change Drop More
<input type="checkbox"/>	3 Phone Number	int(11)			No	None			Change Drop More
<input type="checkbox"/>	4 SSN	char(9)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	5 Time Of Lesson	time			Yes	NULL			Change Drop More
<input type="checkbox"/>	6 Lesson Preference	int(11)			No	None			Change Drop More
<input type="checkbox"/>	7 Super_SSN	char(9)	utf8mb4_general_ci		Yes	NULL			Change Drop More

↑

☐ Check all

With selected:

Browse

Change

Drop

Primary

Unique

Index

Spatial

Fulltext

Add to central columns

Remove from central columns

Print

Propose table structure

Track table

Move columns

Normalize

Add

1

column(s)

after Super_SSN

Go

Indexes

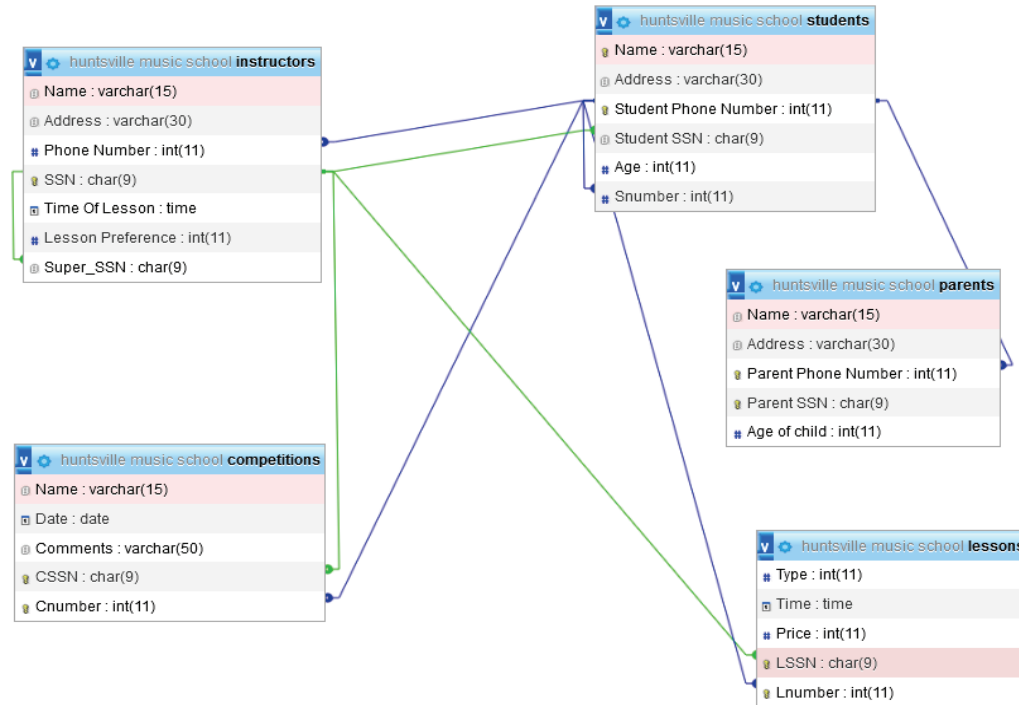
Action	Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
Edit Rename Drop	PRIMARY	BTREE	Yes	No	SSN	0	A	No	
Edit Rename Drop	Super_SSN	BTREE	No	No	Super_SSN	0	A	Yes	
Edit Rename Drop	Phone Number	BTREE	No	No	Phone Number	0	A	No	

Create an index on 1 columns

Go

Partitions

ER Diagram Generated by PHPMysqladmin



```

-- phpMyAdmin SQL Dump
-- version 5.2.0
-- https://www.phpmyadmin.net/
--
-- Host: 127.0.0.1
-- Generation Time: Dec 05, 2022 at 01:18 AM
-- Server version: 10.4.25-MariaDB
-- PHP Version: 8.1.10

SET SQL_MODE = "NO_AUTO_VALUE_ON_ZERO";
START TRANSACTION;
SET time_zone = "+00:00";

/*!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 utf8mb4 */;

--
-- Database: `huntsville music school`
--

--
-- -----
--
-- Table structure for table `competitions`
--

CREATE TABLE `competitions` (
  `Name` varchar(15) NOT NULL,
  `Date` date DEFAULT NULL,
  `Comments` varchar(50) DEFAULT NULL,
  `CSSN` char(9) NOT NULL,
  `Cnumber` int(11) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

--
-- -----
--
-- Table structure for table `instructors`
--

CREATE TABLE `instructors` (
  `Name` varchar(15) NOT NULL,
  `Address` varchar(30) DEFAULT NULL,
  `Phone Number` int(11) NOT NULL,
  `SSN` char(9) NOT NULL,
  `Time Of Lesson` time DEFAULT NULL,
  `Lesson Preference` int(11) NOT NULL,
  `Super_SSN` char(9) DEFAULT NULL

```

```
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

```
-- -----
```

```
--  
-- Table structure for table `lessons`  
--
```

```
CREATE TABLE `lessons` (  
  `Type` int(11) NOT NULL,  
  `Time` time NOT NULL,  
  `Price` int(11) DEFAULT NULL,  
  `LSSN` char(9) NOT NULL,  
  `Lnumber` int(11) NOT NULL  
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

```
-- -----
```

```
--  
-- Table structure for table `parents`  
--
```

```
CREATE TABLE `parents` (  
  `Name` varchar(15) NOT NULL,  
  `Address` varchar(30) DEFAULT NULL,  
  `Parent Phone Number` int(11) NOT NULL,  
  `Parent SSN` char(9) NOT NULL,  
  `Age of child` int(11) NOT NULL  
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

```
-- -----
```

```
--  
-- Table structure for table `students`  
--
```

```
CREATE TABLE `students` (  
  `Name` varchar(15) NOT NULL,  
  `Address` varchar(30) NOT NULL,  
  `Student Phone Number` int(11) NOT NULL,  
  `Student SSN` char(9) NOT NULL,  
  `Age` int(11) DEFAULT NULL,  
  `Snumber` int(11) NOT NULL  
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

```
--  
-- Indexes for dumped tables  
--
```

```
--  
-- Indexes for table `competitions`  
--
```

```

ALTER TABLE `competitions`
  ADD PRIMARY KEY (`CSSN`,`Cnumber`),
  ADD KEY `Cnumber` (`Cnumber`);

--
-- Indexes for table `instructors`
--
ALTER TABLE `instructors`
  ADD PRIMARY KEY (`SSN`) USING BTREE,
  ADD KEY `Super_SSN` (`Super_SSN`),
  ADD KEY `Phone Number` (`Phone Number`);

--
-- Indexes for table `lessons`
--
ALTER TABLE `lessons`
  ADD PRIMARY KEY (`LSSN`,`Lnumber`),
  ADD KEY `Lnumber` (`Lnumber`);

--
-- Indexes for table `parents`
--
ALTER TABLE `parents`
  ADD PRIMARY KEY (`Parent Phone Number`,`Parent SSN`);

--
-- Indexes for table `students`
--
ALTER TABLE `students`
  ADD PRIMARY KEY (`Student Phone Number`) USING BTREE,
  ADD UNIQUE KEY `Name` (`Name`),
  ADD KEY `Student SSN` (`Student SSN`),
  ADD KEY `Snumber` (`Snumber`);

--
-- Constraints for dumped tables
--

--
-- Constraints for table `competitions`
--
ALTER TABLE `competitions`
  ADD CONSTRAINT `competitions_ibfk_1` FOREIGN KEY (`CSSN`)
REFERENCES `instructors` (`SSN`),
  ADD CONSTRAINT `competitions_ibfk_2` FOREIGN KEY (`Cnumber`)
REFERENCES `students` (`Student Phone Number`);

--
-- Constraints for table `instructors`
--
ALTER TABLE `instructors`
  ADD CONSTRAINT `instructors_ibfk_1` FOREIGN KEY (`Super_SSN`)

```

```

REFERENCES `instructors` (`SSN`),
  ADD CONSTRAINT `instructors_ibfk_2` FOREIGN KEY (`Phone
Number`) REFERENCES `students` (`Student Phone Number`);

--
-- Constraints for table `lessons`
--
ALTER TABLE `lessons`
  ADD CONSTRAINT `lessons_ibfk_1` FOREIGN KEY (`LSSN`) REFERENCES
`instructors` (`SSN`),
  ADD CONSTRAINT `lessons_ibfk_2` FOREIGN KEY (`Lnumber`)
REFERENCES `students` (`Student Phone Number`);

--
-- Constraints for table `parents`
--
ALTER TABLE `parents`
  ADD CONSTRAINT `parents_ibfk_1` FOREIGN KEY (`Parent Phone
Number`) REFERENCES `students` (`Student Phone Number`);

--
-- Constraints for table `students`
--
ALTER TABLE `students`
  ADD CONSTRAINT `students_ibfk_1` FOREIGN KEY (`Student SSN`)
REFERENCES `instructors` (`SSN`),
  ADD CONSTRAINT `students_ibfk_2` FOREIGN KEY (`Snumber`)
REFERENCES `students` (`Student Phone Number`);
COMMIT;

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

```