

Web-Based Music School Manager

Design Manual - Database

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# Introduction

This document is intended to be an accompaniment to the design manual. It describes the database structure and it tables. The following is some information on the database:

* Database: MySQL
* Database Name: musicschool
* Tables: 15

The following section describes each table in detail, with the final section containing the entity relationship diagram.

# Tables

## Users



Figure : users table

This table stores all the basic user information.

**Table name**: users

**Fields**: 11

The users table contains the following fields:

|  |  |
| --- | --- |
| Field Name | Description |
| user\_id | The primary key for the table |
| username | The users login name |
| user\_password | The users login password |
| user\_forename | The user forename |
| user\_surname | The users surname |
| user\_email | The users e-mail address |
| user\_address | The users home address |
| user\_telephone | The users home telephone address |
| user\_mobile | The user’s personal mobile phone number |
| user\_type | Specifies the users login type, can contain one of three different values: admin, teacher or student |
| user\_verified | This is a Boolean value, either 1 or 0, 1 indicating that the user is valid and can log in, 0 indicating that the user has registered an account but has not been verified |

## Schoolinfo

schoolinfo_table.jpg

Figure : schoolinfo table

This table stores the basic school information.

**Table name**: schoolinfo

**Fields**: 5

The schoolinfo table contains the following fields:

|  |  |
| --- | --- |
| Field Name | Description |
| school\_id | The primary key for this table |
| school\_name | The schools name |
| school\_address | The schools address |
| school\_phone | The schools phone number |
| school\_email | The schools e-mail address |

## Timetableinfo

timetableinfo_table.jpg

Figure : timetableinfo table

**Table name**: timetableinfo

**Fields**: 4

The timetableinfo table contains the following fields:

|  |  |
| --- | --- |
| Field Name | Description |
| ttinfo\_id | The primary key for this table |
| academic\_year | The current academic year |
| days\_per\_week | The number of days the school operates per week |
| lessons\_per\_day | The number of lesson periods in a day |

## Subjectstaught

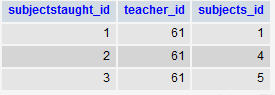


Figure : subjectstaught table

This table stores the subjects taught by each teacher. It’s a simple lookup table containing two foreign keys; one to the teacher stored in the users table and the second to the subject stored in the subjects table.

**Table name**: subjectstaught

**Fields**: 3

The subjectstaught table contains the following fields:

|  |  |
| --- | --- |
| Field Name | Description |
| subjectstaught\_id | This is the primary key for this table |
| teacher\_id | This is a foreign key pointing to a teacher record in the users table |
| subjects\_id | This is a foreign key pointing to a subject record in the subjects table |

This table is linked to the following tables: users and subjects.

## Subjects

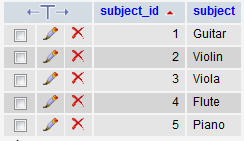


Figure : subjects table

This table stores all the subjects offered by the school.

**Table name**: subjects

**Fields**: 2

The subjects table contains the following fields:

|  |  |
| --- | --- |
| Field Name | Description |
| subject\_id | The primary key for this table |
| subject | A subject taught within the school |

## Studentgrades

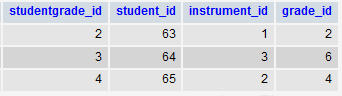


Figure : studentgrades table

This table stores the instruments and their associated grades for a student. It’s a simple lookup table containing three foreign keys.

**Table name**: studentgrades

**Fields**: 4

The studentgrades table contains the following fields:

|  |  |
| --- | --- |
| Field Name | Description |
| studentgrade\_id | This is the primary key for this table |
| student\_id | This is a foreign key pointing to a student record in the users table |
| instrument\_id | This is a foreign key pointing to a student record in the users table |
| grade\_id | This is a foreign key pointing to a grade record in the grades table |

This table is linked to the following tables: users, instruments and grades.

## Rooms



Figure : rooms table

**Table name**: rooms

**Fields**: 3

The rooms table contains the following fields:

|  |  |
| --- | --- |
| Field Name | Description |
| room\_id | The primary key for this table |
| room\_name | This field stores the room name |
| room\_short\_name | This field stores the shortened room name |
|  |  |

## Personalisation



Figure : personalisation table

**Table name**: personalistaion

**Fields**: 3

The personalisation table contains the following fields:

|  |  |
| --- | --- |
| Field Name | Description |
| personalisation\_id | The primary key for this table |
| image\_path | The path to an uploaded image |
| image\_used | A Boolean which indicates if the file is to be used |

## News



Figure : news table

**Table name**: news

**Fields**: 2

The news table contains the following fields:

|  |  |
| --- | --- |
| Field Name | Description |
| news\_id | The primary key for this table |
| news\_item | This field contains the news items |

## Lessons

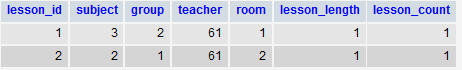


Figure : lessons table

This table stores all the created lessons. It contains four foreign keys.

**Table name**: lessons

**Fields**: 7

The lessons table contains the following fields:

|  |  |
| --- | --- |
| Field Name | Description |
| lesson\_id | The primary key for the lessons table |
| subject | This is a foreign key pointing to a subject record in the subjects table |
| group | This is a foreign key pointing to a group record in the groups table |
| teacher | This is a foreign key pointing to a teacher record in the users table |
| room | This is a foreign key pointing to a room record in the rooms table |
| lesson\_length | This field contains the length of the lesson (in periods) |
| lesson\_count | This field contains the number of times the lesson is repeated per week |

This table is linked to the following tables: users, groups and subjects.

## Instruments



Figure : instruments table

**Table name**: instruments

**Fields**: 3

The instruments table contains the following fields:

|  |  |
| --- | --- |
| Field Name | Description |
| instrument\_id | The primary key for this table |
| instrument\_name | The name of an instrument |
| instrument\_used | Boolean value, indicating whether the instrument is currently used in the school (1=true/0=false) |
|  |  |

## Grouptypes



Figure : grouptypes table

**Table name**: grouptype

**Fields**: 2

The grouptype table contains the following fields:

|  |  |
| --- | --- |
| Field Name | Description |
| grouptype\_id | The primary key for this table |
| grouptype\_name | The name of a group type |

## Groups

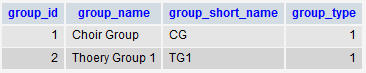


Figure : groups table

This table stores the information on groups, it contains one foreign key.

**Table name**: groups

**Fields**: 4

The groups table contains the following fields:

|  |  |
| --- | --- |
| Field Name | Description |
| group\_id | The primary key for the groups table |
| group\_name | The name of the group |
| group\_short\_name | The short name for the group |
| group\_type | This is a foreign key pointing to a group type record in the grouptype table |

This table is linked to the following table: grouptype.

## Groupparticipants

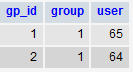


Figure : groupparticipants table

This table stores the students participating in a group. It’s a simple lookup table containing two foreign keys.

**Table name**: groupparticipants

**Fields**: 3

The groupparticipants table contains the following fields:

|  |  |
| --- | --- |
| Field Name | Description |
| gp\_id | The primary key for the groupparticipants table |
| group | This is a foreign key pointing to a group record in the groups table |
| users | This is a foreign key pointing to a student record in the users table |

This table is linked to the following table: groups and users.

## Grades



Figure : grades table

**Table name**: grades

**Fields**: 2

The grades table contains the following fields:

|  |  |
| --- | --- |
| Field Name | Description |
| grade\_id | The primary key for this table |
| grade | This field stores all the available grades |

# Entity Relationship Diagram

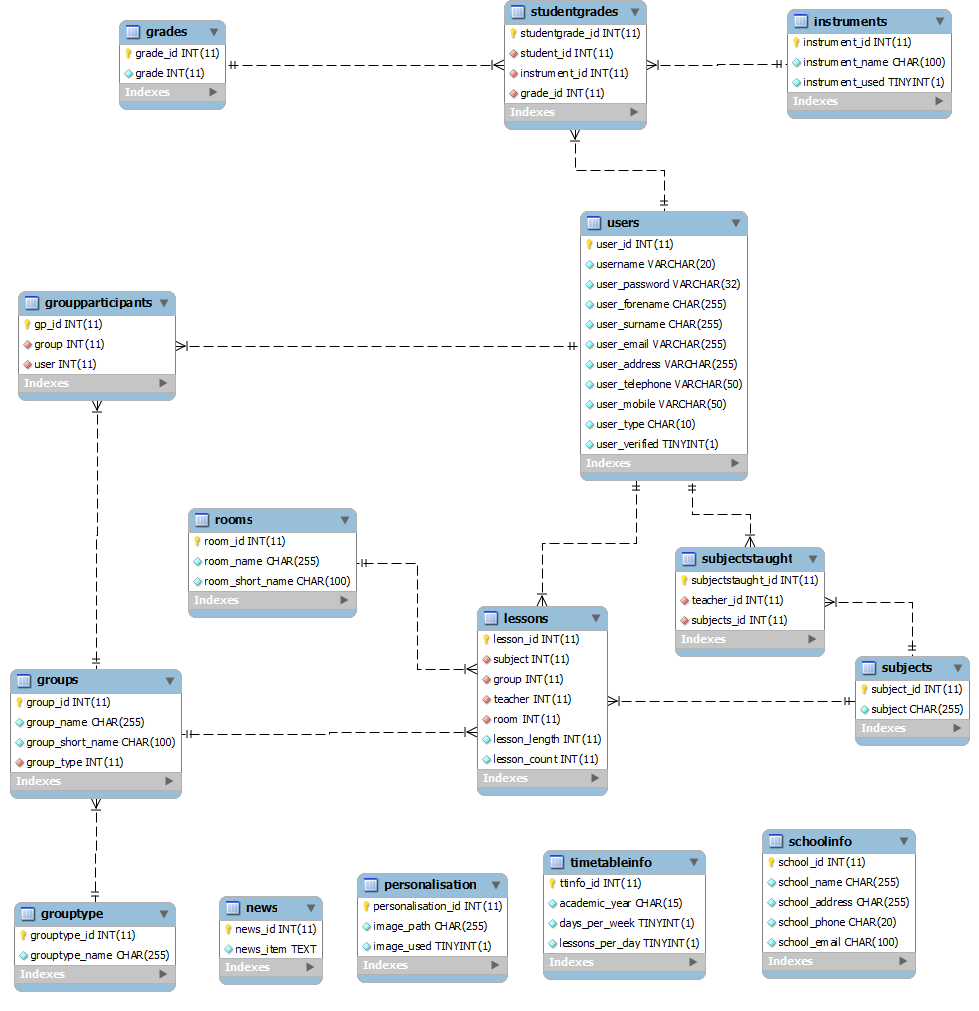


Figure : ER diagram for the musicschool database