Documentation: localhost.xyz_university.06/17/2020

Introduction

XYZ University is a great institution where hundreds of students enroll in various schools yearly. With the increase of students' numbers in each year the XYZ faced a huge problem with storing the students' data. Our main objective to build a complete database system to help the XYZ employees store and retrieve students' data easily...

Database Users

The xyz_university users are like students, lectures, employees, etc. Additionally, you can describe each database user role. In other words, you can describe what a student can do while using the xyz_database. For example, a student can login to the database, view campus information, school details, study programs within each school and so on.

XYZ_University Naming Convention Rules

For example, in the xyz_university we have followed the next naming convention rules like:

- No numbers used in tables, columns and stored procedures names.
- No spaces.
- The underscore "_" is only used to separate two words.
- No special characters "@, #, $, &" were used.

XYZ_University Database Use Cases

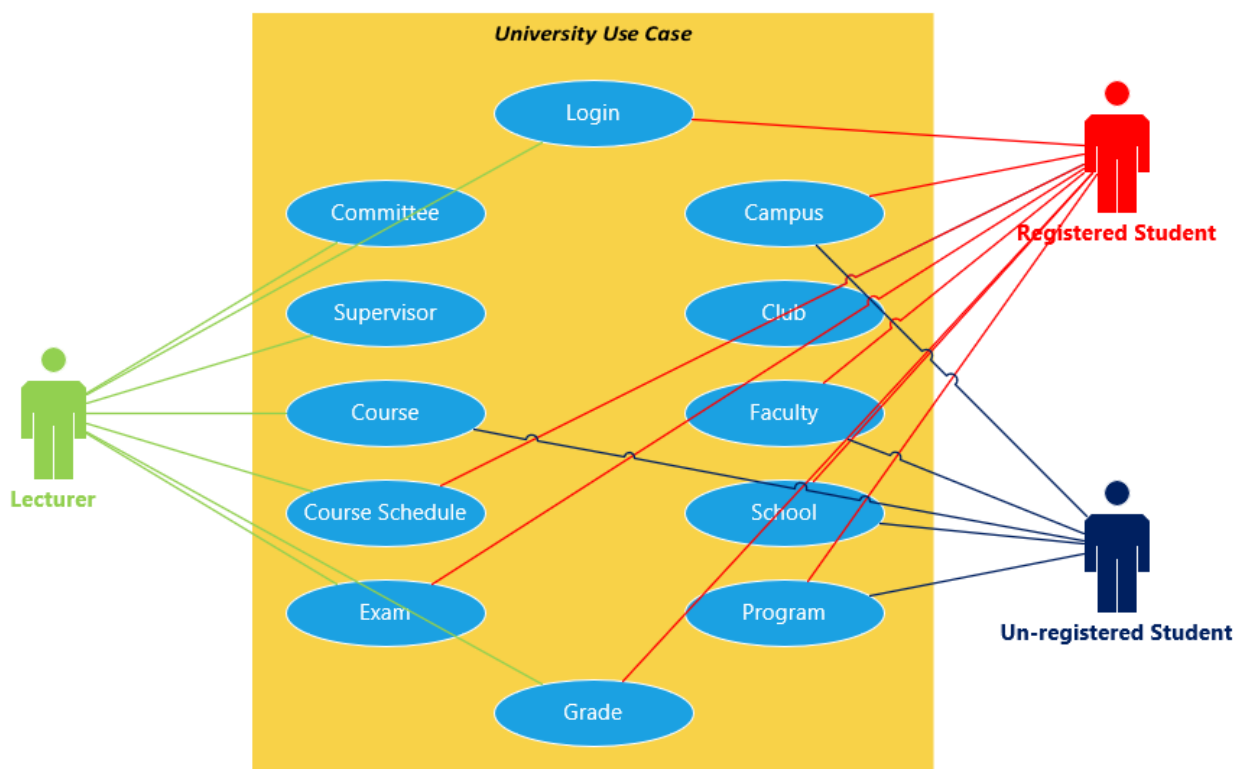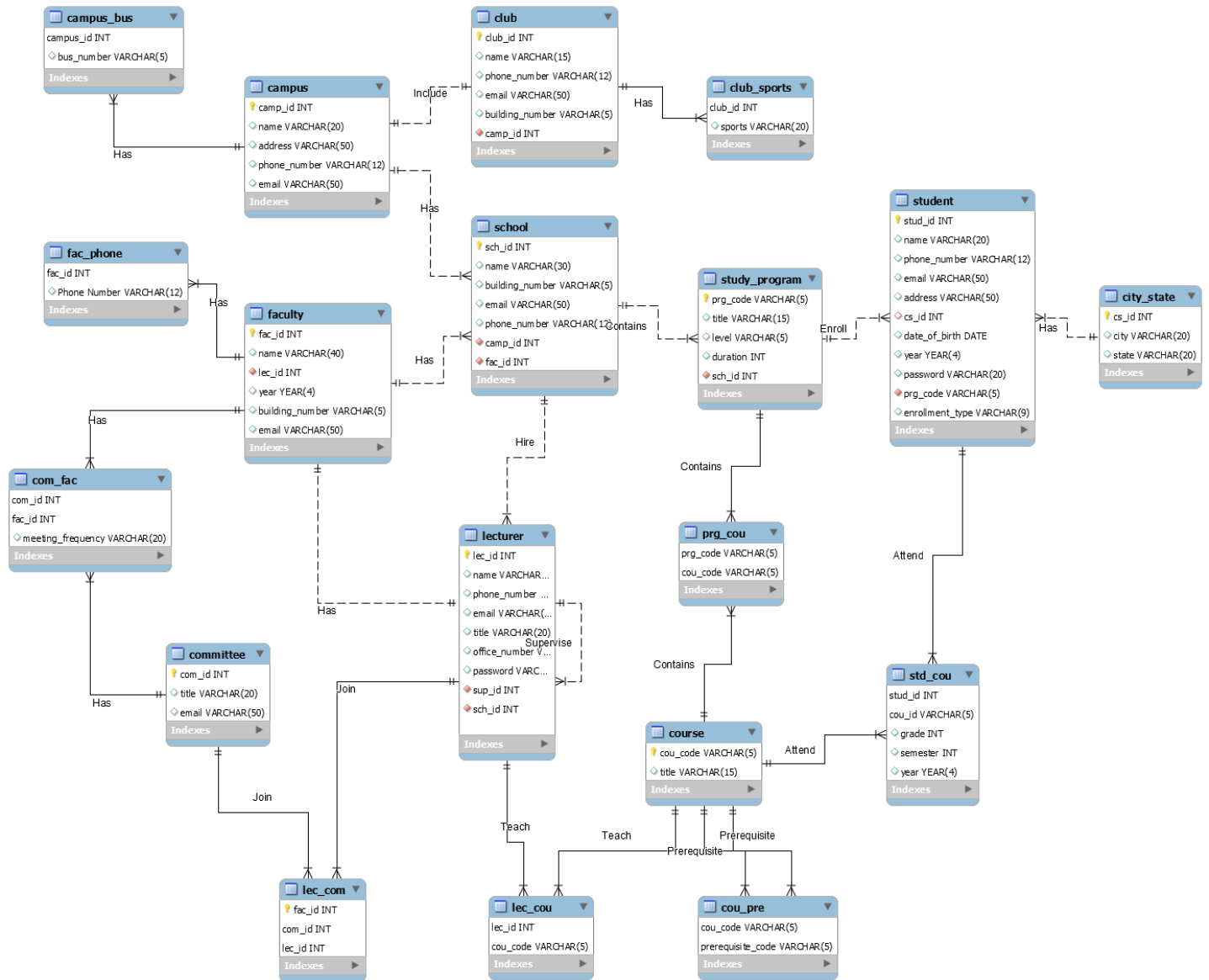You can attach all the use cases designed in previous lessons as below:

Figure 1 - XYZ_University Use Case

XYZ_University Database Entity Relationship Diagram

Additionally, you can add the final ER diagram for the database:

campus_bus
- campus_id INT
- bus_number VARCHAR(5)
- Indexes

campus
- camp_id INT
- name VARCHAR(20)
- address VARCHAR(50)
- phone_number VARCHAR(12)
- email VARCHAR(50)
- Indexes

club
- club_id INT
- name VARCHAR(15)
- phone_number VARCHAR(12)
- email VARCHAR(50)
- building_number VARCHAR(5)
- camp_id INT
- Indexes

club_sports
- club_id INT
- sports VARCHAR(20)
- Indexes

fac_phone
- fac_id INT
- Phone Number VARCHAR(12)
- Indexes

faculty
- fac_id INT
- name VARCHAR(40)
- lec_id INT
- year YEAR(4)
- building_number VARCHAR(5)
- email VARCHAR(50)
- Indexes

school
- sch_id INT
- name VARCHAR(30)
- building_number VARCHAR(5)
- email VARCHAR(50)
- phone_number VARCHAR(12)
- camp_id INT
- fac_id INT
- Indexes

study_program
- prg_code VARCHAR(5)
- title VARCHAR(15)
- level VARCHAR(5)
- duration INT
- sch_id INT
- Indexes

student
- stud_id INT
- name VARCHAR(20)
- phone_number VARCHAR(12)
- email VARCHAR(50)
- address VARCHAR(50)
- cs_id INT
- date_of_birth DATE
- year YEAR(4)
- password VARCHAR(20)
- prg_code VARCHAR(5)
- enrollment_type VARCHAR(9)
- Indexes

city_state
- cs_id INT
- city VARCHAR(20)
- state VARCHAR(20)
- Indexes

com_fac
- com_id INT
- fac_id INT
- meeting_frequency VARCHAR(20)
- Indexes

lecturer
- lec_id INT
- name VARCHAR...
- phone_number ...
- email VARCHAR(...
- title VARCHAR(20)
- office_number V...
- password VARC...
- sup_id INT
- sch_id INT
- Indexes

prg_cou
- prg_code VARCHAR(5)
- cou_code VARCHAR(5)
- Indexes

std_cou
- stud_id INT
- cou_id VARCHAR(5)
- grade INT
- semester INT
- year YEAR(4)
- Indexes

committee
- com_id INT
- title VARCHAR(20)
- email VARCHAR(50)
- Indexes

course
- cou_code VARCHAR(5)
- title VARCHAR(15)
- Indexes

lec_com
- fac_id INT
- com_id INT
- lec_id INT
- Indexes

lec_cou
- lec_id INT
- cou_code VARCHAR(5)
- Indexes

cou_pre
- cou_code VARCHAR(5)
- prerequisite_code VARCHAR(5)
- Indexes

Relationships: Include, Has, Contains, Enroll, Hire, Attend, Supervise, Join, Teach, Prerequisite

Database Security Recommendations

Mention some recommendations to keep your database secure as:

- Some security recommendations like:
- Consider performing a database backup periodically.
- Do not grant database users full privileges. Grant privileges they are going to use only.
- Consider using a strong password policy as discussed above.

Servers

Server index

	Server
	root@localhost:3306

See also

About this documentation

localhost

Database index

	Database
	xyz_university

See also

Server overview

Server overview

Server properties

Name	Value
Product	MySQL
Version	8.0.19
Hostname	localhost
Port	3306

See also

root@localhost:3306

xyz_university

Database objects

Objects	Total
Tables	21
Users	1

See also

Database overview

Database overview

Database information

Name	Value
Name	xyz_university
Owner	localhost
Creation Date	5/22/2020 3:38:23 AM
Collation	utf8mb4_0900_ai_ci
Total Size	0.7 MB
Data Directory	C:\ProgramData\MySQL\MySQL Server 8.0\Data\

See also

xyz_university

List of tables

Tables

Name	Description	Creation date	Engine
campus	Include all campuses information.	4/22/2020 11:10:54 AM	InnoDB
campus_bus	Include all bus numbers and details.	4/22/2020 11:11:03 AM	InnoDB
city_state	Connect each state with the corresponding city.	4/22/2020 11:10:58 AM	InnoDB
club		4/22/2020 11:10:54 AM	InnoDB
club_sports		4/22/2020 11:11:04 AM	InnoDB
com_fac		4/22/2020 11:11:07 AM	InnoDB
committee		4/22/2020 11:11:02 AM	InnoDB
cou_pre		4/22/2020 11:11:05 AM	InnoDB
course		4/22/2020 11:10:57 AM	InnoDB
fac_phone		4/22/2020 11:11:11 AM	InnoDB
faculty		5/20/2020 2:19:31 AM	InnoDB
lec_com		4/22/2020 11:11:10 AM	InnoDB
lec_cou		4/22/2020 11:11:06 AM	InnoDB
lecturer		5/20/2020 9:49:29 PM	InnoDB
parameter		4/22/2020 11:11:02 AM	InnoDB
prg_cou		4/22/2020 11:11:08 AM	InnoDB
school		5/22/2020 3:38:23 AM	InnoDB
school2		5/3/2020 11:57:50 PM	InnoDB
std_cou		4/22/2020 11:11:08 AM	InnoDB
student		4/22/2020 11:11:00 AM	InnoDB
study_program		4/22/2020 11:10:57 AM	InnoDB

Total: 21 table(s)

See also

Database overview

Table: campus

Properties

Name	Value
Average row length	47
Checksum	0
Collation	utf8mb4_0900_ai_ci
Created	4/22/2020 11:10:54 AM
Engine	InnoDB
Row format	Dynamic
Rows	4097
Type	Table

Columns

Name	Type	Is nullable	Key	Default	Extra	Precision	Scale	Description
address	varchar(50)	✗				0	0	Campus address.
camp_id	int	✗	PRI			10	0	Campus primary key.
email	varchar(30)	✗				0	0	Campus email.
name	varchar(20)	✗				0	0	Campus full name.
phone_number	varchar(12)	✗				0	0	Campus phone number.

Indexes

Cardinality	Collation	Name	Comment	Type	Unique	Name	Null	Packed	Seq in index	Sub part	Table
3914	A	camp_id	This index is created to speed up retrieving the student's data.	BTREE	✓	PRIMARY			1	0	campus

Used by

Name	Type	Depth
new_campus	Procedure	1
campus_bus	Table	1

Next Gates Education

Script

```sql
CREATE TABLE `campus` (
  `camp_id` int NOT NULL,
  `name` varchar(20) NOT NULL,
  `address` varchar(50) NOT NULL,
  `phone_number` varchar(12) NOT NULL,
  `email` varchar(30) NOT NULL,
  PRIMARY KEY (`camp_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
```

See also

[List of tables](#)

Table: campus_bus

Properties

Name	Value
Average row length	0
Checksum	0
Collation	utf8mb4_0900_ai_ci
Created	4/22/2020 11:11:03 AM
Engine	InnoDB
Row format	Dynamic
Rows	0
Type	Table

Columns

Name	Type	Is nullable	Key	Default	Extra	Precision	Scale	Description
bus_number	varchar(5)	✗				0	0	
campus_id	int	✗	PRI			10	0	

Indexes

Cardinality	Collation	Name	Comment	Type	Unique	Name	Null	Packed	Seq in index	Sub part	Table
0	A	campus_id		BTREE	✓	PRIMARY			1	0	campus_bus

Foreign keys

Name	Match option	Position in unique constraint	Referenced table name	Referenced column name	Ordinal position	Update rule
camp_bus_campus_id		1	campus	camp_id	1	NO ACTION

Depends on

Name	Type	Depth
[campus](#)	Table	1

Script

```
CREATE TABLE `campus_bus` (
  `campus_id` int NOT NULL,
  `bus_number` varchar(5) NOT NULL,
  PRIMARY KEY (`campus_id`),
  CONSTRAINT `camp_bus_campus_id` FOREIGN KEY (`campus_id`) REFERENCES `campus` (`camp_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
```

See also

[List of tables](#)

Table: city_state

Properties

Name	Value
Average row length	0
Checksum	0
Collation	utf8mb4_0900_ai_ci
Created	4/22/2020 11:10:58 AM
Engine	InnoDB
Row format	Dynamic
Rows	0
Type	Table

Columns

Name	Type	Is nullable	Key	Default	Extra	Precision	Scale	Description
city	varchar(20)	X				0	0	
cs_id	int	X	PRI			10	0	
state	varchar(20)	X				0	0	

Indexes

Cardinality	Collation	Name	Comment	Type	Unique	Name	Null	Packed	Seq in index	Sub part	Table
0	A	cs_id		BTREE	✓	PRIMARY			1	0	city_state

Script

```
CREATE TABLE `city_state` (
  `cs_id` int NOT NULL,
  `city` varchar(20) NOT NULL,
  `state` varchar(20) NOT NULL,
  PRIMARY KEY (`cs_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
```

See also

[List of tables](#)

Table: club

Properties

Next Gates Education

Name	Value
Average row length	5461
Checksum	0
Collation	utf8mb4_0900_ai_ci
Created	4/22/2020 11:10:54 AM
Engine	InnoDB
Row format	Dynamic
Rows	3
Type	Table

Columns

Name	Type	Is nullable	Key	Default	Extra	Precision	Scale	Description
building_number	varchar(5)	✗				0	0	The club building number.
camp_id	int	✗				10	0	The club is located in which campus.
club_id	int	✗	PRI			10	0	Club primary key.
email	varchar(30)	✓				0	0	
name	varchar(15)	✗				0	0	
phone_number	varchar(12)	✓				0	0	

Indexes

Cardinality	Collation	Name	Comment	Type	Unique	Name	Null	Packed	Seq in index	Sub part	Table
3	A	club_id		BTREE	✓	PRIMARY			1	0	club

Used by

Name	Type	Depth
club_sports	Table	1

Script

```
CREATE TABLE `club` (
  `club_id` int NOT NULL,
  `name` varchar(15) NOT NULL,
  `phone_number` varchar(12) DEFAULT NULL,
  `email` varchar(30) DEFAULT NULL,
  `building_number` varchar(5) NOT NULL,
  `camp_id` int NOT NULL,
  PRIMARY KEY (`club_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
```

See also

List of tables

Table: club_sports

Properties

Name	Value
Average row length	0
Checksum	0
Collation	utf8mb4_0900_ai_ci
Created	4/22/2020 11:11:04 AM
Engine	InnoDB
Row format	Dynamic
Rows	0
Type	Table

Columns

Name	Type	Is nullable	Key	Default	Extra	Precision	Scale	Description
club_id	int	X	PRI			10	0	
sports	varchar(20)	X				0	0	

Indexes

Cardinality	Collation	Name	Comment	Type	Unique	Name	Null	Packed	Seq in index	Sub part	Table
0	A	club_id		BTREE	✓	PRIMARY			1	0	club_sports

Foreign keys

Name	Match option	Position in unique constraint	Referenced table name	Referenced column name	Ordinal position	Update rule
sport_club_id		1	club	club_id	1	NO ACTION

Depends on

Name	Type	Depth
club	Table	1

Script

```
CREATE TABLE `club_sports` (
  `club_id` int NOT NULL,
  `sports` varchar(20) NOT NULL,
  PRIMARY KEY (`club_id`),
  CONSTRAINT `sport_club_id` FOREIGN KEY (`club_id`) REFERENCES `club` (`club_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
```

See also

[List of tables](#)

Table: com_fac

Properties

Name	Value
Average row length	0
Checksum	0
Collation	utf8mb4_0900_ai_ci

Next Gates Education

Created	4/22/2020 11:11:07 AM
Engine	InnoDB
Row format	Dynamic
Rows	0
Type	Table

Columns

Name	Type	Is nullable	Key	Default	Extra	Precision	Scale	Description
com_id	int	✗	PRI			10	0	
fac_id	int	✗	MUL			10	0	
meeting_frequency	varchar(20)	✓				0	0	

Indexes

Cardinality	Collation	Name	Comment	Type	Unique	Name	Null	Packed	Seq in index	Sub part	Table
0	A	com_id		BTREE	✓	PRIMARY			1	0	com_fac
0	A	fac_id		BTREE	✗	com_fac_id			1	0	com_fac

Foreign keys

Name	Match option	Position in unique constraint	Referenced table name	Referenced column name	Ordinal position	Update rule
com_fac_id		1	faculty	fac_id	1	NO ACTION

Depends on

Name	Type	Depth
faculty	Table	1

Script

```
CREATE TABLE `com_fac` (
  `com_id` int NOT NULL,
  `meeting_frequency` varchar(20) DEFAULT NULL,
  `fac_id` int NOT NULL,
  PRIMARY KEY (`com_id`),
  KEY `com_fac_id` (`fac_id`),
  CONSTRAINT `com_fac_id` FOREIGN KEY (`fac_id`) REFERENCES `faculty` (`fac_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
```

See also

Table: committee

Properties

Name	Value
Average row length	0
Checksum	0

Collation	utf8mb4_0900_ai_ci
Created	4/22/2020 11:11:02 AM
Engine	InnoDB
Row format	Dynamic
Rows	0
Type	Table

Columns

Name	Type	Is nullable	Key	Default	Extra	Precision	Scale	Description
com_id	int	✗	PRI			10	0	
email	varchar(30)	✓				0	0	
title	varchar(20)	✗				0	0	

Indexes

Cardinality	Collation	Name	Comment	Type	Unique	Name	Null	Packed	Seq in index	Sub part	Table
0	A	com_id		BTREE	✓	PRIMARY			1	0	committee

Used by

Name	Type	Depth
lec_com	Table	1

Script

```
CREATE TABLE `committee` (
  `com_id` int NOT NULL,
  `title` varchar(20) NOT NULL,
  `email` varchar(30) DEFAULT NULL,
  PRIMARY KEY (`com_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
```

See also

Table: cou_pre

Properties

Name	Value
Average row length	0
Checksum	0
Collation	utf8mb4_0900_ai_ci
Created	4/22/2020 11:11:05 AM
Engine	InnoDB
Row format	Dynamic
Rows	0
Type	Table

Columns

Name	Type	Is nullable	Key	Default	Extra	Precision	Scale	Description
cou_code	varchar(5)	X	PRI			0	0	
pre_code	varchar(5)	X	MUL			0	0	

Indexes

Cardinality	Collation	Name	Comment	Type	Unique	Name	Null	Packed	Seq in index	Sub part	Table
0	A	cou_code		BTREE	✓	PRIMARY			1	0	cou_pre
0	A	pre_code		BTREE	X	cou_pre_pre_code			1	0	cou_pre

Foreign keys

Name	Match option	Position in unique constraint	Referenced table name	Referenced column name	Ordinal position	Update rule
cou_pre_pre_code		1	course	cou_code	1	NO ACTION

Depends on

Name	Type	Depth
course	Table	1

Script

```sql
CREATE TABLE `cou_pre` (
  `cou_code` varchar(5) NOT NULL,
  `pre_code` varchar(5) NOT NULL,
  PRIMARY KEY (`cou_code`),
  KEY `cou_pre_pre_code` (`pre_code`),
  CONSTRAINT `cou_pre_pre_code` FOREIGN KEY (`pre_code`) REFERENCES `course` (`cou_code`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
```

See also

[List of tables](#)

Table: course

Properties

Name	Value
Average row length	0
Checksum	0
Collation	utf8mb4_0900_ai_ci
Created	4/22/2020 11:10:57 AM
Engine	InnoDB
Row format	Dynamic
Rows	0
Type	Table

Columns

Name	Type	Is nullable	Key	Default	Extra	Precision	Scale	Description

cou_code	varchar(5)	X	PRI		0	0
title	varchar(15)	X			0	0

Indexes

Cardinality	Collation	Name	Comment	Type	Unique	Name	Null	Packed	Seq in index	Sub part	Table
0	A	cou_code		BTREE	✓	PRIMARY			1	0	course

Used by

Name	Type	Depth
cou_pre	Table	1
lec_cou	Table	1
prg_cou	Table	1
std_cou	Table	1

Script

```
CREATE TABLE `course` (
  `cou_code` varchar(5) NOT NULL,
  `title` varchar(15) NOT NULL,
  PRIMARY KEY (`cou_code`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
```

See also

Table: fac_phone

Properties

Name	Value
Average row length	0
Checksum	0
Collation	utf8mb4_0900_ai_ci
Created	4/22/2020 11:11:11 AM
Engine	InnoDB
Row format	Dynamic
Rows	0
Type	Table

Columns

Name	Type	Is nullable	Key	Default	Extra	Precision	Scale	Description
fac_id	int	X	PRI			10	0	
phone_number	varchar(12)	X				0	0	

Indexes

Cardinality	Collation	Name	Comment	Type	Unique	Name	Null	Packed	Seq in index	Sub part	Table

| 0 | A | fac_id | BTREE | ✓ | PRIMARY | | 1 | 0 | fac_phone |

Foreign keys

Name	Match option	Position in unique constraint	Referenced table name	Referenced column name	Ordinal position	Update rule
phone_fac_id		1	faculty	fac_id	1	NO ACTION

Depends on

Name	Type	Depth
faculty	Table	1

Script

```
CREATE TABLE `fac_phone` (
  `fac_id` int NOT NULL,
  `phone_number` varchar(12) NOT NULL,
  PRIMARY KEY (`fac_id`),
  CONSTRAINT `phone_fac_id` FOREIGN KEY (`fac_id`) REFERENCES `faculty` (`fac_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
```

See also

List of tables

Table: faculty

Properties

Name	Value
Average row length	2048
Checksum	0
Collation	utf8mb4_0900_ai_ci
Created	5/20/2020 2:19:31 AM
Engine	InnoDB
Row format	Dynamic
Rows	8
Type	Table

Columns

Name	Type	Is nullable	Key	Default	Extra	Precision	Scale	Description
building_number	varchar(5)	✗				0	0	
email	varchar(30)	✓				0	0	
fac_id	int	✗	PRI			10	0	
lec_id	int	✗				10	0	
name	varchar(40)	✗	MUL			0	0	
year	year	✗				0	0	

Indexes

Cardinality	Collation	Name	Comment	Type	Unique	Name	Null	Packed	Seq in index	Sub part	Table

| 8 | A | fac_id | BTREE | ✓ | PRIMARY | | 1 | 0 | faculty |
| 8 | A | name | BTREE | ✗ | fac_index | | 1 | 0 | faculty |

Used by

Name	Type	Depth
com_fac	Table	1
fac_phone	Table	1
lec_com	Table	1

Script

```sql
CREATE TABLE `faculty` (
  `fac_id` int NOT NULL,
  `name` varchar(40) NOT NULL,
  `lec_id` int NOT NULL,
  `year` year NOT NULL,
  `building_number` varchar(5) NOT NULL,
  `email` varchar(30) DEFAULT NULL,
  PRIMARY KEY (`fac_id`),
  KEY `fac_index` (`name`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
```

See also

List of tables

Table: lec_com

Properties

Name	Value
Average row length	0
Checksum	0
Collation	utf8mb4_0900_ai_ci
Created	4/22/2020 11:11:10 AM
Engine	InnoDB
Row format	Dynamic
Rows	0
Type	Table

Columns

Name	Type	Is nullable	Key	Default	Extra	Precision	Scale	Description
com_id	int	✗	MUL			10	0	
fac_id	int	✗	MUL			10	0	
lec_id	int	✗	MUL			10	0	

Indexes

Cardinality	Collation	Name	Comment	Type	Unique	Name	Null	Packed	Seq in index	Sub part	Table
0	A	lec_id		BTREE	✗	lec_com_lec_id			1	0	lec_com

| 0 | A | com_id | BTREE | X | lec_com_com_id | 1 | 0 | lec_com |
| 0 | A | fac_id | BTREE | X | lec_com_fac_id | 1 | 0 | lec_com |

Foreign keys

Name	Match option	Position in unique constraint	Referenced table name	Referenced column name	Ordinal position	Update rule
lec_com_com_id	1	committee	com_id	1	NO ACTION
lec_com_fac_id	1	faculty	fac_id	1	NO ACTION
lec_com_lec_id	1	lecturer	lec_id	1	NO ACTION

Depends on

Name	Type	Depth
committee	Table	1
faculty	Table	1
lecturer	Table	1

Script

```sql
CREATE TABLE `lec_com` (
  `lec_id` int NOT NULL,
  `com_id` int NOT NULL,
  `fac_id` int NOT NULL,
  KEY `lec_com_lec_id` (`lec_id`),
  KEY `lec_com_com_id` (`com_id`),
  KEY `lec_com_fac_id` (`fac_id`),
  CONSTRAINT `lec_com_com_id` FOREIGN KEY (`com_id`) REFERENCES `committee` (`com_id`),
  CONSTRAINT `lec_com_fac_id` FOREIGN KEY (`fac_id`) REFERENCES `faculty` (`fac_id`),
  CONSTRAINT `lec_com_lec_id` FOREIGN KEY (`lec_id`) REFERENCES `lecturer` (`lec_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
```

See also

List of tables

Table: lec_cou

Properties

Name	Value
Average row length	0
Checksum	0
Collation	utf8mb4_0900_ai_ci
Created	4/22/2020 11:11:06 AM
Engine	InnoDB
Row format	Dynamic
Rows	0
Type	Table

Columns

Name	Type	Is nullable	Key	Default	Extra	Precision	Scale	Description
cou_code	varchar(5)	X	MUL			0	0	

lec_id	int	X	MUL	10	0	

Indexes

Cardinality	Collation	Name	Comment	Type	Unique	Name	Null	Packed	Seq in index	Sub part	Table
0	A	cou_code		BTREE	X	lec_cou_code			1	0	lec_cou
0	A	lec_id		BTREE	X	lec_lec_id			1	0	lec_cou

Foreign keys

Name	Match option	Position in unique constraint	Referenced table name	Referenced column name	Ordinal position	Update rule
lec_cou_code		1	course	cou_code	1	NO ACTION
lec_lec_id		1	lecturer	lec_id	1	NO ACTION

Depends on

Name	Type	Depth
course	Table	1
lecturer	Table	1

Script

```
CREATE TABLE `lec_cou` (
  `cou_code` varchar(5) NOT NULL,
  `lec_id` int NOT NULL,
  KEY `lec_cou_code` (`cou_code`),
  KEY `lec_lec_id` (`lec_id`),
  CONSTRAINT `lec_cou_code` FOREIGN KEY (`cou_code`) REFERENCES `course` (`cou_code`),
  CONSTRAINT `lec_lec_id` FOREIGN KEY (`lec_id`) REFERENCES `lecturer` (`lec_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
```

See also

Table: lecturer

Properties

Name	Value
Average row length	862
Checksum	0
Collation	utf8mb4_0900_ai_ci
Created	5/20/2020 9:49:29 PM
Engine	InnoDB
Row format	Dynamic
Rows	19
Type	Table

Columns

Name	Type	Is nullable	Key	Default	Extra	Precision	Scale	Description
email	varchar(50)	X				0	0	
lec_id	int	X	PRI			10	0	
name	varchar(20)	X	MUL			0	0	
office_number	varchar(20)	X				0	0	
password	varchar(5)	X				0	0	
phone_number	varchar(12)	X				0	0	
sch_id	int	X				10	0	
sup_id	int	X				10	0	
title	varchar(20)	X				0	0	

Indexes

Cardinality	Collation	Name	Comment	Type	Unique	Name	Null	Packed	Seq in index	Sub part	Table
19	A	lec_id		BTREE	✓	PRIMARY			1	0	lecturer
19	A	name		BTREE	X	lec_index			1	0	lecturer

Used by

Name	Type	Depth
lec_com	Table	1
lec_cou	Table	1

Script

```
CREATE TABLE `lecturer` (
  `lec_id` int NOT NULL,
  `name` varchar(20) NOT NULL,
  `phone_number` varchar(12) NOT NULL,
  `email` varchar(50) NOT NULL,
  `title` varchar(20) NOT NULL,
  `office_number` varchar(20) NOT NULL,
  `password` varchar(5) NOT NULL,
  `sch_id` int NOT NULL,
  `sup_id` int NOT NULL,
  PRIMARY KEY (`lec_id`),
  KEY `lec_index` (`name`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
```

See also

List of tables

Table: parameter

Properties

Name	Value
Average row length	0
Checksum	0
Collation	utf8mb4_0900_ai_ci
Created	4/22/2020 11:11:02 AM
Engine	InnoDB
Row format	Dynamic

Rows	0
Type	Table

Columns

Name	Type	Is nullable	Key	Default	Extra	Precision	Scale	Description
condition	varchar(50)	X				0	0	
par_id	int	X	PRI			10	0	
value	varchar(10)	X				0	0	

Indexes

Cardinality	Collation	Name	Comment	Type	Unique	Name	Null	Packed	Seq in index	Sub part	Table
0	A	par_id		BTREE	✓	PRIMARY			1	0	parameter

Script

```
CREATE TABLE `parameter` (
  `par_id` int NOT NULL,
  `condition` varchar(50) NOT NULL,
  `value` varchar(10) NOT NULL,
  PRIMARY KEY (`par_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
```

See also

[List of tables](#)

Table: prg_cou

Properties

Name	Value
Average row length	0
Checksum	0
Collation	utf8mb4_0900_ai_ci
Created	4/22/2020 11:11:08 AM
Engine	InnoDB
Row format	Dynamic
Rows	0
Type	Table

Columns

Name	Type	Is nullable	Key	Default	Extra	Precision	Scale	Description
cou_code	varchar(5)	X	MUL			0	0	
prg_code	varchar(5)	X	MUL			0	0	

Indexes

Cardinality	Collation	Name	Comment	Type	Unique	Name	Null	Packed	Seq in index	Sub part	Table

| 0 | A | prg_cod e | BTRE E | X | prg_prg_co de | | 1 | 0 | prg_co u |
| 0 | A | cou_co de | BTRE E | X | prg_cou_co de | | 1 | 0 | prg_co u |

Foreign keys

Name	Match option	Position in unique constraint	Referenced table name	Referenced column name	Ordinal position	Update rule
prg_cou_code	1	course	cou_code	1	NO ACTION
prg_prg_code	1	study_program	prg_code	1	NO ACTION

Depends on

Name	Type	Depth
course	Table	1
study_program	Table	1

Script

```
CREATE TABLE `prg_cou` (
  `prg_code` varchar(5) NOT NULL,
  `cou_code` varchar(5) NOT NULL,
  KEY `prg_prg_code` (`prg_code`),
  KEY `prg_cou_code` (`cou_code`),
  CONSTRAINT `prg_cou_code` FOREIGN KEY (`cou_code`) REFERENCES `course` (`cou_code`),
  CONSTRAINT `prg_prg_code` FOREIGN KEY (`prg_code`) REFERENCES `study_program` (`prg_code`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
```

See also

[List of tables](#)

Table: school

Properties

Name	Value
Average row length	409
Checksum	0
Collation	utf8mb4_0900_ai_ci
Created	5/22/2020 3:38:23 AM
Engine	InnoDB
Row format	Dynamic
Rows	40
Type	Table

Columns

Name	Type	Is nullable	Key	Default	Extra	Precision	Scale	Description
building_number	varchar(5)	X				0	0	
camp_id	int	X				10	0	
email	varchar(50)	✓				0	0	
fac_id	int	X				10	0	
name	varchar(30)	X				0	0	
phone_number	varchar(12)	✓				0	0	

Name	Type		Key			Precision	Scale	Description
sch_id	int		X		PRI		10	0

Indexes

Cardinality	Collation	Name	Comment	Type	Unique	Name	Null	Packed	Seq in index	Subpart	Table
40	A	sch_id		BTREE	✓	PRIMARY			1	0	school

Script

```
CREATE TABLE `school` (
  `sch_id` int NOT NULL,
  `name` varchar(30) NOT NULL,
  `building_number` varchar(5) NOT NULL,
  `phone_number` varchar(12) DEFAULT NULL,
  `email` varchar(50) DEFAULT NULL,
  `camp_id` int NOT NULL,
  `fac_id` int NOT NULL,
  PRIMARY KEY (`sch_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
```

See also

[List of tables](#)

Table: school2

Properties

Name	Value
Average row length	409
Checksum	0
Collation	utf8mb4_0900_ai_ci
Created	5/3/2020 11:57:50 PM
Engine	InnoDB
Row format	Dynamic
Rows	40
Type	Table

Columns

Name	Type	Is nullable	Key	Default	Extra	Precision	Scale	Description
building_number	varchar(5)	X				0	0	
camp_id	int	X				10	0	
email	varchar(50)	✓				0	0	
fac_id	int	X				10	0	
name	varchar(30)	X				0	0	
phone_number	varchar(12)	✓				0	0	
sch_id	int	X	PRI			10	0	

Indexes

Cardinality	Collation	Name	Comment	Type	Unique	Name	Null	Packed	Seq in	Sub	Table

								index	part	
40	A	sch_id	BTREE	✓	PRIMARY			1	0	school2

Script

```sql
CREATE TABLE `school2` (
  `sch_id` int NOT NULL,
  `name` varchar(30) NOT NULL,
  `building_number` varchar(5) NOT NULL,
  `phone_number` varchar(12) DEFAULT NULL,
  `email` varchar(50) DEFAULT NULL,
  `camp_id` int NOT NULL,
  `fac_id` int NOT NULL,
  PRIMARY KEY (`sch_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
```

See also

[List of tables](#)

Table: std_cou

Properties

Name	Value
Average row length	0
Checksum	0
Collation	utf8mb4_0900_ai_ci
Created	4/22/2020 11:11:08 AM
Engine	InnoDB
Row format	Dynamic
Rows	0
Type	Table

Columns

Name	Type	Is nullable	Key	Default	Extra	Precision	Scale	Description
cou_code	varchar(5)	✗	PRI			0	0	
grade	int	✗				10	0	
semester	int	✗				10	0	
stud_id	int	✗	PRI			10	0	
year	int	✗				10	0	

Indexes

Cardinality	Collation	Name	Comment	Type	Unique	Name	Null	Packed	Seq in index	Sub part	Table
0	A	stud_id		BTREE	✓	PRIMARY			1	0	std_cou
0	A	cou_code		BTREE	✓	PRIMARY			2	0	std_cou
0	A	cou_code		BTREE	✗	std_cou_code			1	0	std_cou

Foreign keys

Name	Match option	Position in unique constraint	Referenced table name	Referenced column name	Ordinal position	Update rule
std_cou_code	1	1	course	cou_code	1	NO ACTION
std_stud_id	1	1	student	stud_id	1	NO ACTION

Depends on

Name	Type	Depth
course	Table	1
student	Table	1

Script

```
CREATE TABLE `std_cou` (
  `stud_id` int NOT NULL,
  `cou_code` varchar(5) NOT NULL,
  `year` int NOT NULL,
  `semester` int NOT NULL,
  `grade` int NOT NULL,
  PRIMARY KEY (`stud_id`,`cou_code`),
  KEY `std_cou_code` (`cou_code`),
  CONSTRAINT `std_cou_code` FOREIGN KEY (`cou_code`) REFERENCES `course` (`cou_code`),
  CONSTRAINT `std_stud_id` FOREIGN KEY (`stud_id`) REFERENCES `student` (`stud_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
```

See also

List of tables

Table: student

Properties

Name	Value
Average row length	0
Checksum	0
Collation	utf8mb4_0900_ai_ci
Created	4/22/2020 11:11:00 AM
Engine	InnoDB
Row format	Dynamic
Rows	0
Type	Table

Columns

Name	Type	Is nullable	Key	Default	Extra	Precision	Scale	Description
address	varchar(50)	X				0	0	
cs_id	int	X				10	0	
date_of_birth	date	X				0	0	
email	varchar(30)	X				0	0	
enrollment_type	varchar(9)	X				0	0	
name	varchar(20)	X				0	0	
password	varchar(20)	X				0	0	
phone_number	varchar(12)	X				0	0	
prg_code	varchar(5)	X				0	0	
stud_id	int	X	PRI			10	0	

Cardinality	Collation	Name	Comment	Type	Unique	Name	Null	Packed	Seq in index	Sub part	Table
year	year	X							0	0	

Indexes

Cardinality	Collation	Name	Comment	Type	Unique	Name	Null	Packed	Seq in index	Sub part	Table
0	A	stud_id		BTREE	✓	PRIMARY			1	0	student

Used by

Name	Type	Depth
std_cou	Table	1

Script

```
CREATE TABLE `student` (
  `stud_id` int NOT NULL,
  `name` varchar(20) NOT NULL,
  `phone_number` varchar(12) NOT NULL,
  `email` varchar(30) NOT NULL,
  `address` varchar(50) NOT NULL,
  `cs_id` int NOT NULL,
  `date_of_birth` date NOT NULL,
  `year` year NOT NULL,
  `password` varchar(20) NOT NULL,
  `prg_code` varchar(5) NOT NULL,
  `enrollment_type` varchar(9) NOT NULL,
  PRIMARY KEY (`stud_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
```

See also

[List of tables](#)

Table: study_program

Properties

Name	Value
Average row length	0
Checksum	0
Collation	utf8mb4_0900_ai_ci
Created	4/22/2020 11:10:57 AM
Engine	InnoDB
Row format	Dynamic
Rows	0
Type	Table

Columns

Name	Type	Is nullable	Key	Default	Extra	Precision	Scale	Description
duration	int	X				10	0	
level	varchar(5)	X				0	0	
prg_code	varchar(5)	X	PRI			0	0	
sch_id	int	X				10	0	
title	varchar(15)	X				0	0	

Indexes

Cardinality	Collation	Name	Comment	Type	Unique	Name	Null	Packed	Seq in index	Sub part	Table
0	A	prg_code		BTREE	✓	PRIMARY			1	0	study_program

Used by

Name	Type	Depth
prg_cou	Table	1

Script

```
CREATE TABLE `study_program` (
  `prg_code` varchar(5) NOT NULL,
  `title` varchar(15) NOT NULL,
  `level` varchar(5) NOT NULL,
  `duration` int NOT NULL,
  `sch_id` int NOT NULL,
  PRIMARY KEY (`prg_code`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
```

See also

List of tables

List of users

Users

Name	Alter privilege	Create privilege	Delete privilege	Grant privilege	Super privilege
root	✓	✓	✓	✓	✓

Total: 1 user(s)

See also

Database overview

User: root

Properties

Name	Value
Alter privileges	✓
Create privileges	✓
Delete privileges	✓
Execute privileges	✓
File privileges	✓
Grant privileges	✓
Insert privileges	✓
Process privileges	✓
Reload privileges	✓
Select privileges	✓

Script

```
CREATE USER IF NOT EXISTS 'root'@'localhost' IDENTIFIED WITH 'mysql_native_password' AS
'*6BB4837EB74329105EE4568DDA7DC67ED2CA2AD9' ;
```

See also

[List of users](#)

About this documentation

Database documentation details

Name	Value	Contacts
Author	Documentation Writer Name	Phone/E-mail/Website
Database Designed By	Company or Person Name	Phone/E-mail/Website
Database Tested By	Company or Person Name	Phone/E-mail/Website
Created	06/17/2020	
Comments		
Link		

See also

[Servers](#)