

NBA Player Management System

By Harry Lyu and Chenfei Peng

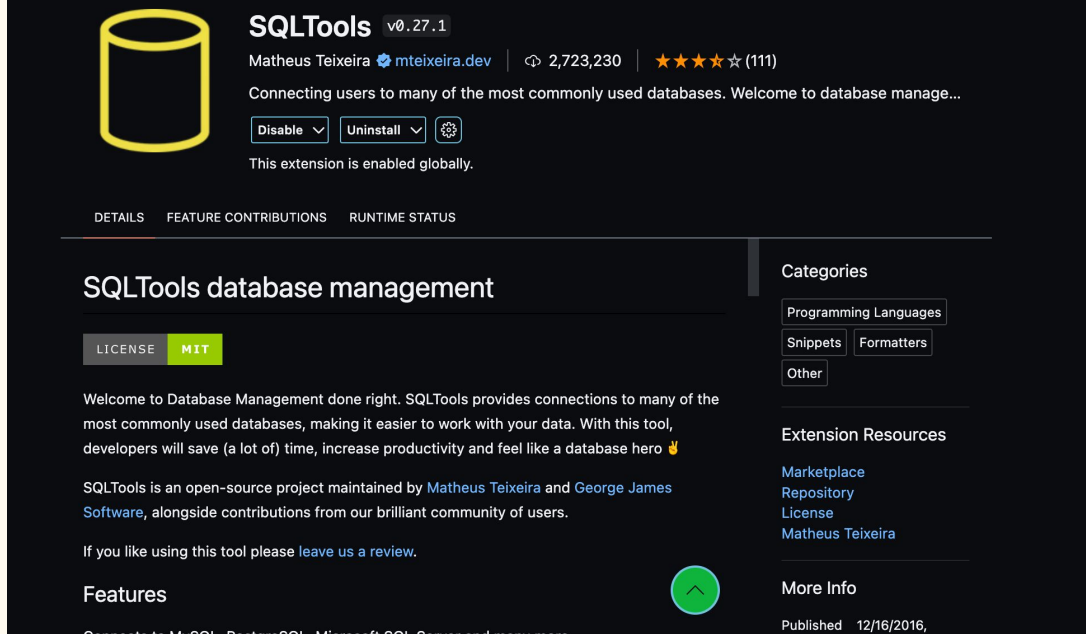
Tools

- Database: Mysql
- Server: Node.js
- Front-end: Angular



Step 1: Setup

Connect mysql to Vscode



The screenshot shows the Visual Studio Code marketplace page for the SQLTools extension. At the top, there is a yellow cylinder icon representing a database. The extension name 'SQLTools' is followed by the version 'v0.27.1'. The author is 'Matheus Teixeira' with a link to 'mteixeira.dev'. It has 2,723,230 downloads and a 4.5-star rating from 111 reviews. Below this, a description states: 'Connecting users to many of the most commonly used databases. Welcome to database manage...'. There are buttons for 'Disable', 'Uninstall', and a settings icon. A note says 'This extension is enabled globally.' Below the description are tabs for 'DETAILS', 'FEATURE CONTRIBUTIONS', and 'RUNTIME STATUS'. The 'DETAILS' tab is active, showing the title 'SQLTools database management'. There are buttons for 'LICENSE' and 'MIT'. A welcome message says: 'Welcome to Database Management done right. SQLTools provides connections to many of the most commonly used databases, making it easier to work with your data. With this tool, developers will save (a lot of) time, increase productivity and feel like a database hero 🦄'. It mentions that SQLTools is an open-source project maintained by Matheus Teixeira and George James Software, with contributions from a community of users. A link to 'leave us a review' is provided. A 'Features' section starts with 'Connects to MySQL, PostgreSQL, Microsoft SQL Server and many more...'. On the right side, there are 'Categories' (Programming Languages, Snippets, Formatters, Other) and 'Extension Resources' (Marketplace, Repository, License, Matheus Teixeira). A 'More Info' section shows the publication date '12/16/2016'.

SQLTools v0.27.1
Matheus Teixeira [mteixeira.dev](#) | 2,723,230 | ★★★★★ (111)
Connecting users to many of the most commonly used databases. Welcome to database manage...
[Disable] [Uninstall] [Settings]
This extension is enabled globally.

DETAILS FEATURE CONTRIBUTIONS RUNTIME STATUS

SQLTools database management

LICENSE MIT

Welcome to Database Management done right. SQLTools provides connections to many of the most commonly used databases, making it easier to work with your data. With this tool, developers will save (a lot of) time, increase productivity and feel like a database hero 🦄

SQLTools is an open-source project maintained by Matheus Teixeira and George James Software, alongside contributions from our brilliant community of users.

If you like using this tool please [leave us a review](#).

Features

Connects to MySQL, PostgreSQL, Microsoft SQL Server and many more...

Categories

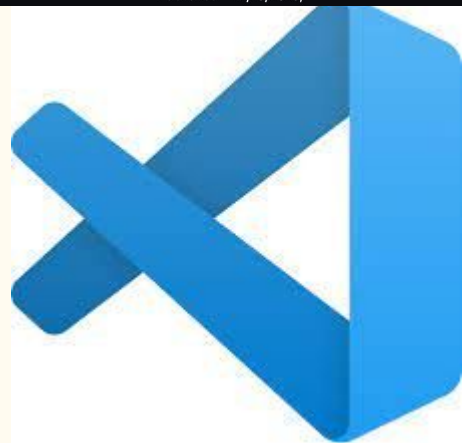
Programming Languages
Snippets Formatters
Other

Extension Resources

Marketplace
Repository
License
Matheus Teixeira

More Info

Published 12/16/2016



Step 2: Database

In the database, we have:

First Normal Form

Second Normal Form

Third Normal Form

First Normal Form

	player_id ▾	player_name ▾	status ▾	teams ▾	country ▾	school ▾	school_type ▾	position ▾	jersey_number ▾	height ▾	weight_lbs
1	1	LeBron James	Active	Cavaliers, ...	USA	St. Vincent-St. Mary HS	High School	SF	6	6'9"	250
2	2	Stephen Curry	Active	Warriors	USA	Davidson College	Community College	PG	30	6'3"	190
3	3	Luka Doncic	Active	Mavericks	Slovenia	Overseas	Foreign School	PG	77	6'7"	230
4	4	Giannis Antetokounmpo	Active	Bucks	Greece	Overseas	Foreign School	PF	34	6'11"	242
5	5	Nikola Jokic	Active	Nuggets	Serbia	Overseas	Foreign School	C	15	6'11"	284
6	6	Kobe Bryant	Inactive	Lakers	USA	Lower Merion HS	High School	SG	24	6'6"	212
7	7	Tim Duncan	Inactive	Spurs	USA	Wake Forest University	University	PF	21	6'11"	250
8	8	Dirk Nowitzki	Inactive	Mavericks	Germany	Overseas	Foreign School	PF	41	7'0"	245
9	9	Dwyane Wade	Inactive	Heat, Bulls...	USA	Marquette University	University	SG	3	6'4"	220
10	10	Allen Iverson	Inactive	76ers, Nugg...	USA	Georgetown University	University	PG	3	6'0"	165

Second Normal Form

	player_id	player_name	status_id	country_id	school_id	position_id	jersey_number	height	weight_lbs
1	1	LeBron James	1	1	1	3	6	6'9"	250
2	2	Stephen Curry	1	1	2	1	30	6'3"	190
3	3	Luka Doncic	1	2	99	1	77	6'7"	230
4	4	Giannis Antetokounmpo	1	3	99	4	34	6'11"	242
5	5	Nikola Jokic	1	4	99	5	15	6'11"	284
6	6	Kobe Bryant	2	1	3	2	24	6'6"	212
7	7	Tim Duncan	2	1	4	4	21	6'11"	250
8	8	Dirk Nowitzki	2	5	99	4	41	7'0"	245
9	9	Dwyane Wade	2	1	5	2	3	6'4"	220
10	10	Allen Iverson	2	1	6	1	3	6'0"	165

	status_id ▼	status_name ▼
1	1	Active
2	2	Inactive

	country_id ▾	country_name ▾
1	1	USA
2	2	Slovenia
3	3	Greece
4	4	Serbia
5	5	Germany

	school_id	school_name	school_type
1	1	St. Vincent-St. Mary HS	High School
2	2	Davidson College	Community College
3	3	Lower Merion HS	High School
4	4	Wake Forest University	University
5	5	Marquette University	University
6	6	Georgetown University	University
7	99	Overseas	Foreign School

	position_id ▾	position_name ▾
1	1	PG
2	2	SG
3	3	SF
4	4	PF
5	5	C

	team_id	team_name
1	1	Cavaliers
2	2	Heat
3	3	Lakers
4	4	Warriors
5	5	Mavericks
6	6	Bucks
7	7	Nuggets
8	8	Spurs
9	9	Bulls
10	10	76ers
11	11	Pistons
12	12	Grizzlies

	career_id	player_id	team_id	period	total_season
1	1	1	1	2003–2010, 2014–2018	11
2	2	1	2	2010–2014	4
3	3	1	3	2018–2023	5
4	4	2	4	2009–2023	14
5	5	3	5	2018–2023	5
6	6	4	6	2013–2023	10
7	7	5	7	2015–2023	8
8	8	6	3	1996–2016	20
9	9	7	8	1997–2016	19
10	10	8	5	1998–2019	21
11	11	9	2	2003–2016, 2018–2019	14
12	12	9	9	2016–2017	1
13	13	9	1	2017–2018	1
14	14	10	10	1996–2006	10
15	15	10	7	2006–2008	2
16	16	10	11	2008–2009	1
17	17	10	12	2009–2010	1

Third Normal Form

	school_type_id ▼	school_type ▼
1	1	High School
2	2	Community College
3	3	University
4	99	Foreign School

	school_id	school_type_id
1	1	1
2	2	2
3	3	1
4	4	3
5	5	3
6	6	3
7	99	99

Step 3: Front-end Angular

Features we have in the front-end:

1. NBA Player Management System
Homepage
2. Have the ability to filter NBA players by
school_types, player_name and so on
3. Have the ability to add a new NBA player
into the database

Interaction between front-end and database

1. In terms of inactive NBA players:
2. In term of active NBA players:
3. In terms of adding a new NBA player



PLAYERS

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LEAGUE ROSTER

All Players



All Teams



All Positions



All Colleges



All Countries



Show Historic













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PLAYER	TEAM	NUMBER	POSITION	HEIGHT	WEIGHT	LAST ATTENDED	COUNTRY
 Precious Achiuwa	TOR	5	F	6-8	225 lbs	Memphis	Nigeria
 Steven Adams	MEM	4	C	6-11	265 lbs	Pittsburgh	New Zealand
 Bam Adebayo	MIA	13	C-F	6-9	255 lbs	Kentucky	USA
 Ochai Agbaji	UTA	30	G	6-5	215 lbs	Kansas	USA
 Santi Aldama	MEM	7	F-C	7-0	215 lbs	Loyola-Maryland	Spain
 Nickeil Alexander-Walker	MIN	9	G	6-5	205 lbs	Virginia Tech	Canada
 Grayson Allen	MIL	12	G	6-4	198 lbs	Duke	USA
 Jarrett Allen	CLE	31	C	6-9	243 lbs	Texas	USA
 Jose Alvarado	NOP	15	G	6-0	179 lbs	Georgia Tech	USA
 Kyle Anderson	MIN	5	F-G	6-9	230 lbs	UCLA	USA

Step 3: Front-end Angular

Interaction between front end and database:

1. In terms of inactive NBA players:

```
const sqlQuery = "SELECT * FROM  
NBA_Players WHERE status = 'Inactive'";
```

2. In term of active NBA players:

```
const sqlQuery = "SELECT * FROM  
NBA_Players WHERE status = 'Active'";
```

Interaction between front end and database

3. In terms of adding a new NBA player:

```
const sqlQuery = "INSERT INTO  
NBA_Players(player name, jersey number,  
position, height, weight, country,  
school name, school type, status,  
teams) VALUES (?, ?, ?, ?, ?, ?, ?, ?  
?, ?)";
```

Things you could do with our system

Suppose you are a
fan of NBA

You can

- 1. Access comprehensive player information**
- 2. Filter and search with ease**
- 3. Add custom players for fun**
- 4. Differentiate between active and inactive players**

Thanks for watching