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## **Big Shiny Geek Show Pub Quiz Database Project Final Report**

The goal of the Big Shiny Geek Show Pub Quiz database is to keep track of pub quiz questions written and provide a compelling interface for pub quiz participants.

### **Tasks**

Initially, these were the tasks that we had hoped to accomplish:

- Will allow users to choose their delivery method for trivia: By category, random, or play the "Pint-Sized Pub Quiz" game.
- Questions will be presented in both multiple choice and write-in answer format.
- Will keep track of high scores for the "Pint-Sized Pub Quiz" game.
- Will have a user sign up and login and will have many users.
- Will have an Admin login with preset administrators.
- Will have a submission screen to add questions and answers within the admin account.
- Will have a screen to add the week's players and winners within the admin account.
- Front page will have info about the Big Shiny Geek Show Pub Quiz, a picture of the hosts, rules, awards, etc, and possibly a place for announcements.
- Front page will also have links to:
  - past winners
  - current week's winners, final standings, pics, etc.
  - calendar of events: Big Shiny Robot! events, Geek Show events, pub quiz, schedule changes & days off.
  - play trivia
  - high scores
  - user login
  - a secret admin login
  - credits page

The final result was not fully functional. The tasks we ended up implementing were:

- Questions are presented as multiple choice
- A wrong answer gives the user the correct answer and the option to continue playing or quit
- A correct answer congratulates the user and gives them the option to continue playing or quit
- Will have an Admin login with preset administrators.
- Will have a submission screen to add questions and answers within the admin account.
- Admin can add users as well

## **Data Discovery**

The data that is in use is primarily questions and answers written and used for our previous pub quizzes, actual teams who play at pub quiz, and actual results from our weekly quiz.

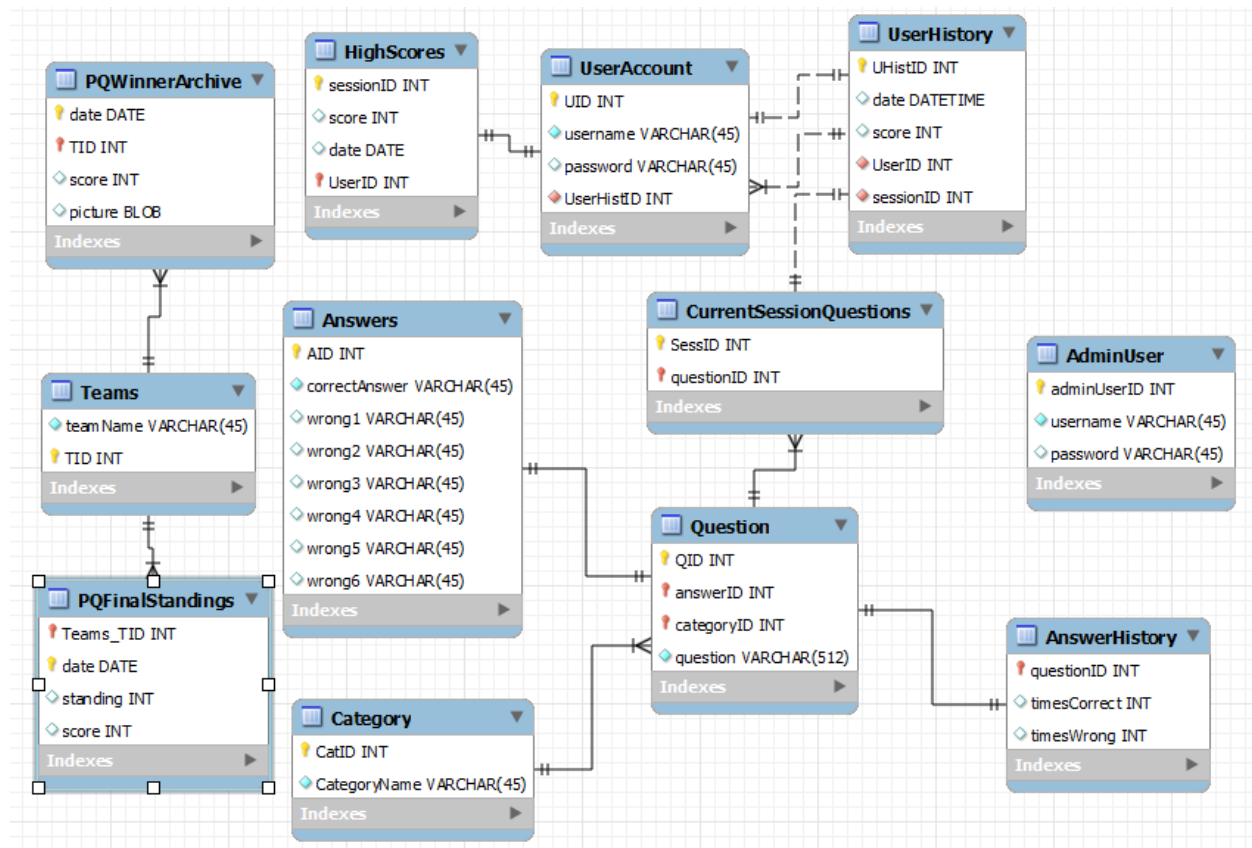
We mainly focused on the question/answer data to get the online quiz working. All of this was from real data used for our pub quiz every Wednesday.

## **Database Modeling and Creation**

We began planning by looking at the aim and purpose of the database and listing tasks and business rules to organize what we actually needed in our implementation. We had to take into account how our data would be used and who would be using it.

We created our conceptual model followed by our relational model. This is where we made most of our changes. There was a lot we didn't realize before, but when we had a visual of how it all tied together, issues we might run into became more clear.

Our EER Diagram:



In the beginning, we implemented this model in MySQL on Cerberus:

Tables:

```
mysql> show tables
-> ;
+-----+
| Tables_in_SuperHappyFunQuiz |
+-----+
| AdminUser                    |
| AnswerHistory                |
| Answers                      |
| Category                    |
| CurrentSessionQuestions      |
| HighScores                   |
| PQFinalStandings             |
| PQWinnerArchive              |
| Question                    |
| Teams                        |
| UserAccount                  |
| UserHistory                  |
+-----+
```

AdminUser Table:

```
mysql> select * from AdminUser;
+-----+-----+-----+
| adminUserID | username      | password |
+-----+-----+-----+
| 1           | ahanley       | password |
| 2           | georgeburns   | password |
| 3           | pattibabie    | password |
| 4           | swankmotron   | password |
| 5           | geekshowshannon | password |
+-----+-----+-----+
```

Category Table:

```
mysql> select * from Category;
+-----+-----+
| CatID | CategoryName |
+-----+-----+
| 1     | Wild Card    |
| 2     | Film         |
| 3     | Geeks        |
| 4     | Jocks        |
| 5     | History      |
+-----+-----+
```

Question Table:

```
mysql> select * from Question \G
***** 1. row *****
      QID: 1
    answerID: 1
  categoryID: 1
    question: What is the capital city of Pakistan?
***** 2. row *****
      QID: 2
    answerID: 2
  categoryID: 1
    question: In which Shakespeare play would you find the characters Oberon, Titania, and Lysander?
***** 3. row *****
      QID: 3
    answerID: 3
  categoryID: 1
    question: What is the currency of the United Arab Emirates?
***** 4. row *****
      QID: 4
    answerID: 4
  categoryID: 1
    question: Which type of tea that was the favorite of a space captain, was named after a British Prime Minister?
***** 5. row *****
      QID: 5
    answerID: 5
  categoryID: 1
    question: What is irenology the study of?
***** 6. row *****
      QID: 6
    answerID: 6
  categoryID: 1
    question: Statler and Waldorf were the two aging hecklers in the Muppets. What were the characters named after?
***** 7. row *****
      QID: 7
    answerID: 7
  categoryID: 1
    question: Who is the Patron Saint of Travellers?
***** 8. row *****
```

### Question/Answer Query:

```
mysql> select question,correctAnswer from Question q, Answers a where q.answerID
= a.AID \G;
***** 1. row *****
      question: What is the capital city of Pakistan?
correctAnswer: Islamabad
***** 2. row *****
      question: In which Shakespeare play would you find the characters Oberon, Ti
tania, and Lysander?
correctAnswer: A Midsummer Night`s Dream
***** 3. row *****
      question: What is the currency of the United Arab Emirates?
correctAnswer: Dirham
***** 4. row *****
      question: Which type of tea that was the favorite of a space captain, was na
med after a British Prime Minister?
correctAnswer: Earl Grey
***** 5. row *****
      question: What is irenology the study of?
correctAnswer: Peace
***** 6. row *****
      question: Statler and Waldorf were the two aging hecklers in the Muppets. Wh
at were the characters named after?
correctAnswer: New York City Hotels
***** 7. row *****
      question: Who is the Patron Saint of Travellers?
correctAnswer: Saint Christopher
***** 8. row *****
      question: Which was the first shoe brand, that was a favorite in the late 80
s to mid 90s, to have its name entered into the Oxford English Dictionary?
correctAnswer: Dr. Martins
```

Teams Table:

```
mysql> select * from Teams;
```

teamName	TID
Yam Spankers	1
The Guild of Calamitous Intelligence	2
The Hydroxyl Group	3
Hello Sparkle Pony	4
Ninja Please	5
Shannon's Our Life Coach	6
Extruded Plastic Dingus	7
Starstruck	8
Cheese Duck	9
Team Demon	10
Assholes	11
Come Back Later	12
Team Bacon	13
Satchmo	14
Whiskey-Pedia	15
Aw, Jesus	16
Were you born an asshole?	17
Mia Suck	18
Republican Man-Date	19
Team Spector	20
Aspirational Team	21
Team Canada	22
Wolverines	23

PQFinalStandings Table:

```
mysql> select * from PQFinalStandings;
```

Teams_TID	date	standing	score	pointsPossible
1	2014-10-29	1st	61	NULL
4	2014-10-05	1st	56	NULL
5	2014-10-05	3rd	54	NULL
6	2014-10-29	3rd	51	NULL
11	2014-10-29	2nd	57	NULL
12	2014-10-29	4th	48	NULL
13	2014-10-29	5th	43	NULL
14	2014-10-29	6th	38	NULL
15	2014-10-05	5th	40	NULL
16	2014-10-05	4th	50	NULL
17	2014-10-05	2nd	55	NULL
18	2014-10-05	2nd	55	NULL

Final Standings for 10/5/14 Query:

```
mysql> select date,standing,score,teamName from PQFinalStandings p,Teams t where
t.TID = p.Teams_TID and p.date = '2014-10-05' order by standing;
+-----+-----+-----+-----+
| date      | standing | score | teamName          |
+-----+-----+-----+-----+
| 2014-10-05 | 1st      | 56    | Hello Sparkle Pony |
| 2014-10-05 | 2nd      | 55    | Were you born an asshole? |
| 2014-10-05 | 2nd      | 55    | Mia Suck          |
| 2014-10-05 | 3rd      | 54    | Ninja Please      |
| 2014-10-05 | 4th      | 50    | Aw, Jesus         |
| 2014-10-05 | 5th      | 40    | Whiskey-Pedia     |
+-----+-----+-----+-----+
```

Final Standings for 10/29/14 Query:

```
mysql> select date,standing,score,teamName from PQFinalStandings p,Teams t where
t.TID = p.Teams_TID and p.date = '2014-10-29' order by standing;
+-----+-----+-----+-----+
| date      | standing | score | teamName          |
+-----+-----+-----+-----+
| 2014-10-29 | 1st      | 61    | Yam Spankers      |
| 2014-10-29 | 2nd      | 57    | Assholes          |
| 2014-10-29 | 3rd      | 51    | Shannon's Our Life Coach |
| 2014-10-29 | 4th      | 48    | Come Back Later   |
| 2014-10-29 | 5th      | 43    | Team Bacon        |
| 2014-10-29 | 6th      | 38    | Satchmo           |
+-----+-----+-----+-----+
```

PQWinnerArchive Table:

```
mysql> select * from PQWinnerArchive;
+-----+-----+-----+-----+-----+
| date      | TID | score | pointsPossible | picture |
+-----+-----+-----+-----+-----+
| 2014-10-05 | 4   | 56    |                | NULL    |
| 2014-10-29 | 1   | 61    |                | NULL    |
+-----+-----+-----+-----+-----+
```

Winner Archive with Team Name Query:

```
mysql> select date,teamName,score from PQWinnerArchive pw,Teams t where t.TID = p
w.TID order by date;
+-----+-----+-----+
| date      | teamName          | score |
+-----+-----+-----+
| 2014-10-05 | Hello Sparkle Pony | 56    |
| 2014-10-29 | Yam Spankers      | 61    |
+-----+-----+-----+
```



## Database User Interface & Application

Though we didn't end up using MySQL for our database, the tables and info basically stayed the same in SQLite. We used Python and HTML with a Django framework.

Our concept for the user interface was, of course, a bit more ambitious than the scope of this project. The basic look of each page would be similar to our concept homepage:



We didn't get anywhere near this, due to issues with the different pieces of our project not playing nicely with one another. Close to the end, we changed from MySQL to SQLite and got basic functionality.

Our new homepage:

**Welcome to the Big Shiny Geek Show's online Pub Quiz!**

[Start Quiz](#)

The quiz pulls questions randomly for the user to answer:

**Who shot President William McKinley at the Pan-American Exposition on September 6, 1901?**

- ☐ Charles Guiteau
- ☐ Leon Czolgosz
- ☐ Richard Lawrence
- ☐ John Flamming Shrank

Continue

A wrong answer will get you:

**You chose: John Flamming Shrank.**

**The correct answer was Leon Czolgosz. You are the weakest link. Goodbye.**

[CONTINUE \(playing this awesome game\)](#) or [QUIT \(ya pansy\)](#)

A correct answer will get you:

**You chose: Leon Czolgosz.**

**Good Job!**

[CONTINUE \(playing this awesome game\)](#) or [QUIT \(ya pansy\)](#)

Our Admin site:

## Site administration

Authentication and Authorization	
Groups	<a href="#">+ Add</a> <a href="#">Change</a>
Users	<a href="#">+ Add</a> <a href="#">Change</a>
Quiz	
Answer historys	<a href="#">+ Add</a> <a href="#">Change</a>
Answerss	<a href="#">+ Add</a> <a href="#">Change</a>
Categorys	<a href="#">+ Add</a> <a href="#">Change</a>
Current session questionss	<a href="#">+ Add</a> <a href="#">Change</a>
Pq final standings	<a href="#">+ Add</a> <a href="#">Change</a>
Pq winner archives	<a href="#">+ Add</a> <a href="#">Change</a>
Questions	<a href="#">+ Add</a> <a href="#">Change</a>
Teamss	<a href="#">+ Add</a> <a href="#">Change</a>

### Recent Actions

#### My Actions

[In 2014, what company's chief executive said it would be great if his company secretly dug up dirt on journalists to silence them](#)  
Question

[In November 2014, what conservative pundit said that Jon Stewart has his head up President Obama's ass?](#)  
Question

[Who shot President William McKinley at the Pan-American Exposition on September 6, 1901?](#)  
Question

[Leon Czolgosz](#)  
Answers

[What Massachusetts congressman was beaten with a cane by fellow congressman Preston Brooks in 1856?](#)

Through the administration site, you can add new questions and answers and add users. It is very basic right now, but eventually, we are hoping to have full use of all of the functions of the admin side of things.

We also can't figure out why it keeps adding an 's' to the end of things...

Our database running:

[illegible]

## **Conclusion**

We both would very much like to work with the Django framework again when we have more time to focus on it. Besides working with a new framework, it was interesting trying out the different database programs as well.

The complexity of some of these larger databases is astounding and brings our little project into perspective. In the end, we gained a much greater appreciation for how much of an artform it really is to design a good database.