

# Programming Multiple Quiz System

A simple Programming Quiz System containing-

- **Instruction page**
    - Student enters Roll No. here
  - **Quiz page**
    - Timed-Quiz appears here
  - **Result page**
    - Result of the user is shown here
  - **Login Page**
    - Admin has to login here first.(*admin, 12345*)
  - **Admin page**
    - All admin related functions are here!
  - **Videos**
    - Users can also watch a video during the quiz. Or anything you want to display to them.
- 

## APIs used to enter and Display Programming codes

- [CodeMirror](#) In-browser code editor.
- [SyntaxHighlighter](#) JavaScript code syntax highlighter.

```
1 #include<stdio.h>
2
3 int main()
4 {
5     charstr[20], *s;
6     printf("Enter a string\n");
7     scanf("%s", str);
8     s=str;
9     while(*s != '\0')
10    {
11        if(*s >= 97&& *s <= 122)
12            *s = *s-32;
13        s++;
14    }
15    printf("%s",str);
16    return0;
17 }
18
```

CodeMirror

```
1 #include<stdio.h>
2
3 int main()
4 {
5     charstr[20], *s;
6     printf("Enter a string\n");
7     scanf("%s", str);
8     s=str;
9     while(*s != '\0')
10    {
11        if(*s >= 97&& *s <= 122)
12            *s = *s-32;
13        s++;
14    }
15    printf("%s",str);
16    return0;
17 }
```

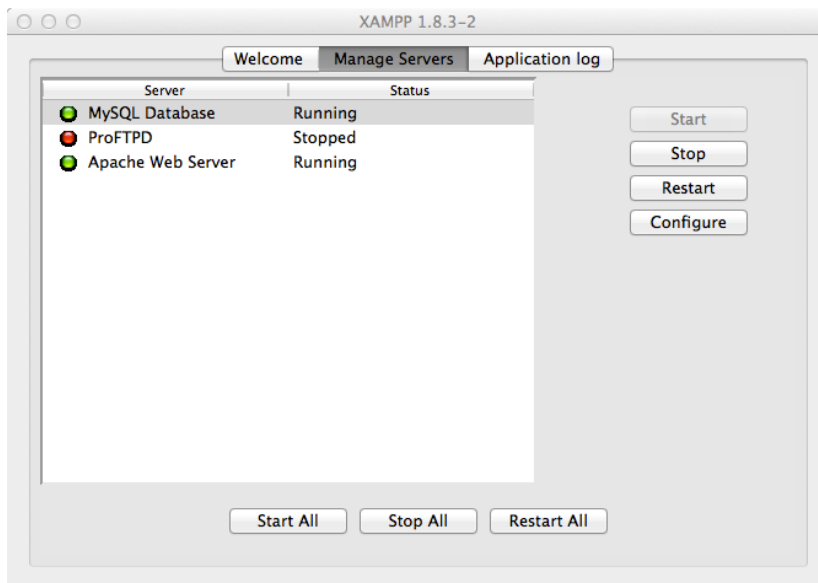
Syntax Highlighter

## Coded & Tested using-

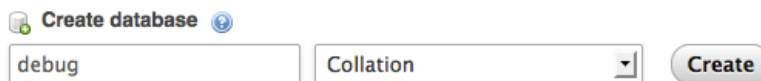
- [XAMPP](#) for Apache server and MySQL.
- [Sublime Text](#) for code editing.
- **Firefox** and **Chrome** browsers.
- **Mac OSX & Windows**.

## How to install on your system-

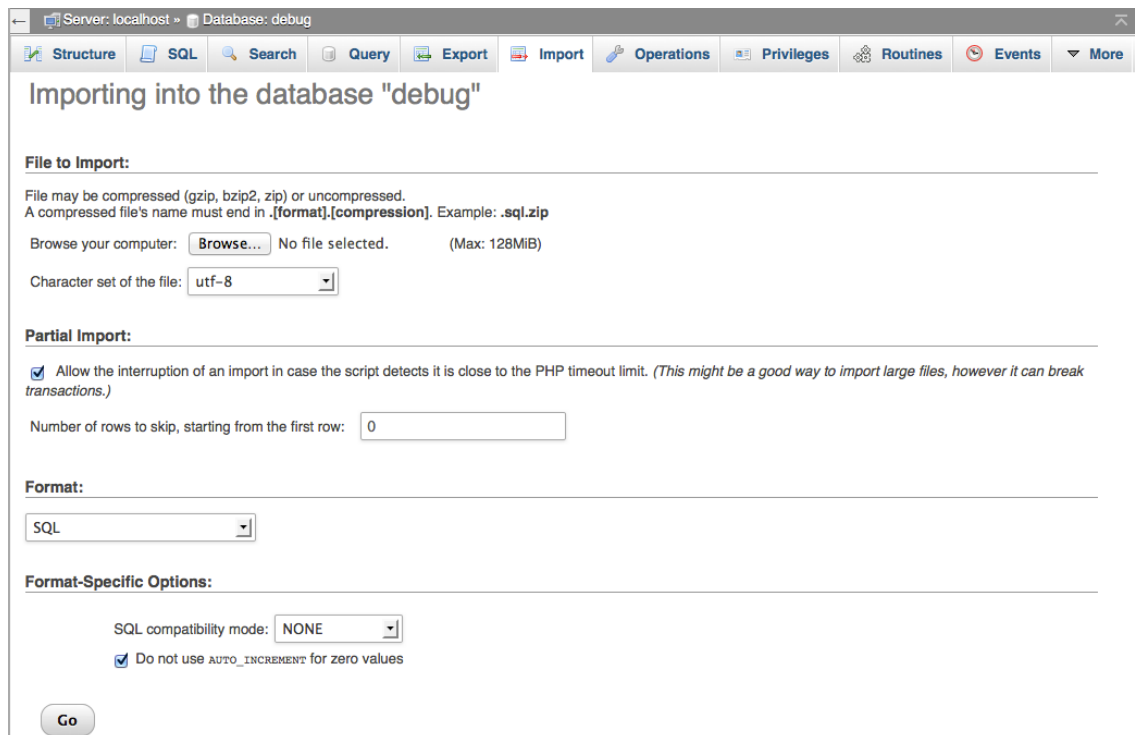
1. Install *XAMPP* and make sure **Apache Web Server** and **MySQL Database** are running



2. copy-paste the **quiz\_system\_git** folder in **htdocs** folder associated with *XAMPP*
3. goto **phpMyAdmin** and *create* a database.

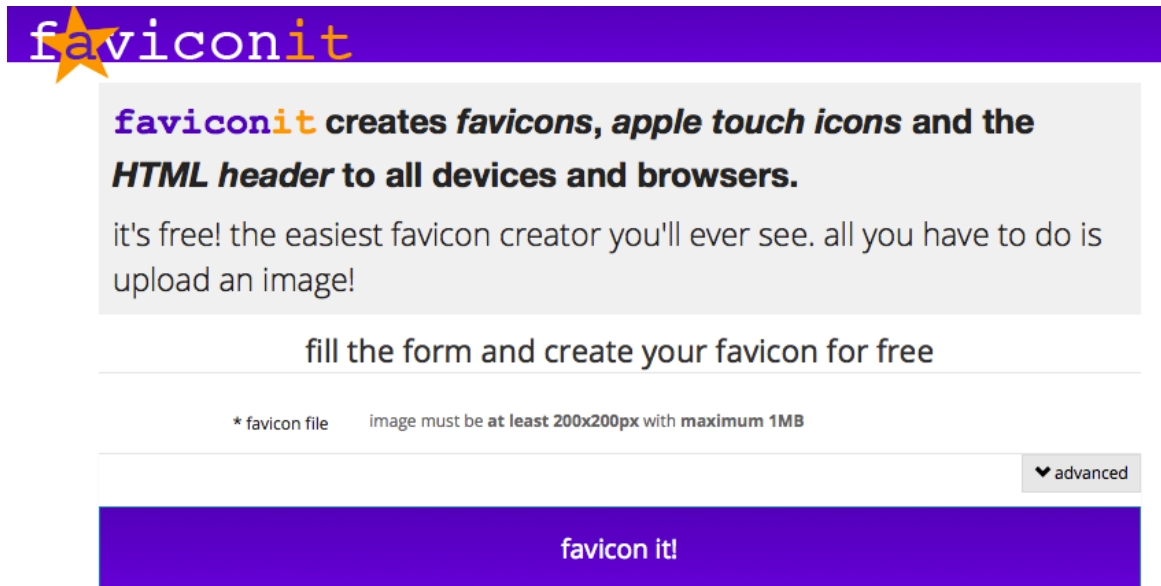


4. *import* the quiz database from **database** folder into it and make sure it has all 5 tables.

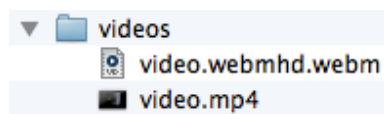


5. *Truncate* the tables to have clean database.
6. **INSERT** first admin in the **admins** database.
7. make required changes in **scripts/connect\_db.php**

8. Get *favicons*-
- visit [faviconit](#) (© 2013-2014 Eduardo Russo).
  - Upload atleast 200x200px img with maximum 1MB size limit.
  - click on **favicon it!** and download the **zip** file.
  - extract the **faviconit.zip** in the **img** folder.

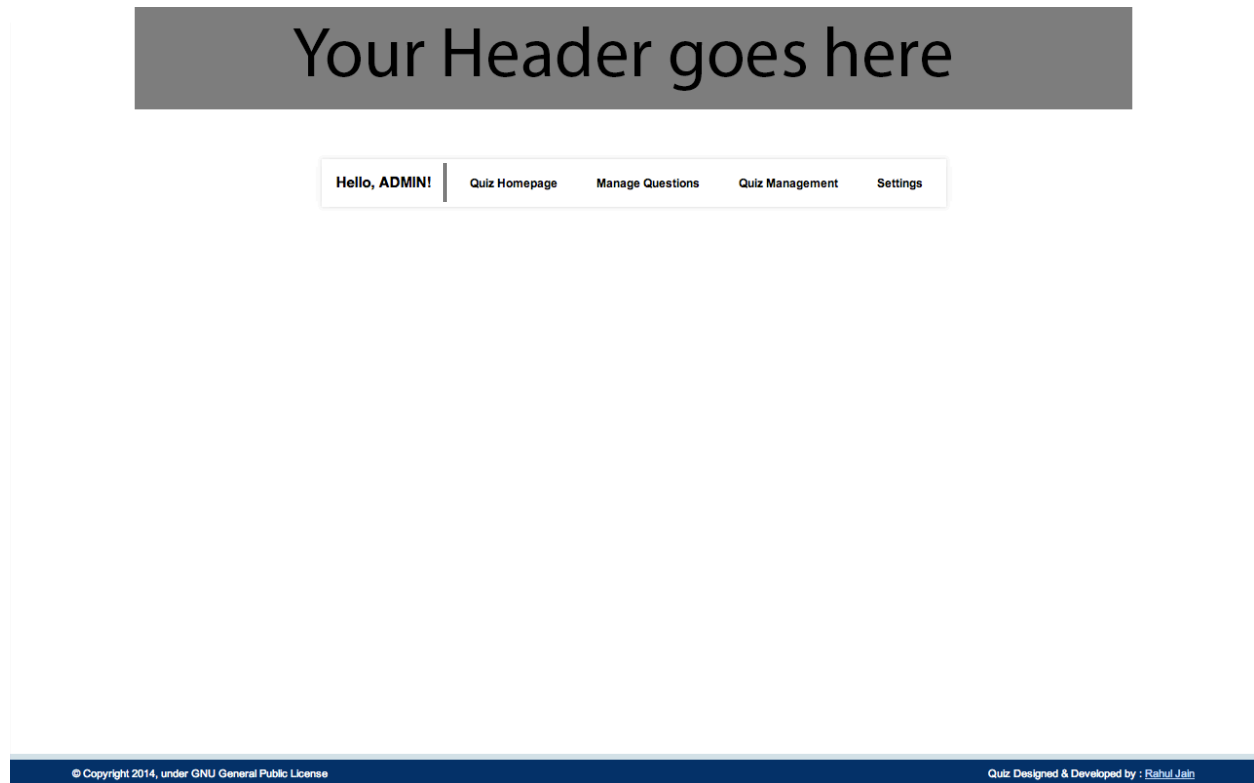


9. Add videos in **webm**(*video.webmhd.webm*) and **mp4**(*video.mp4*) formats in **videos** folder.



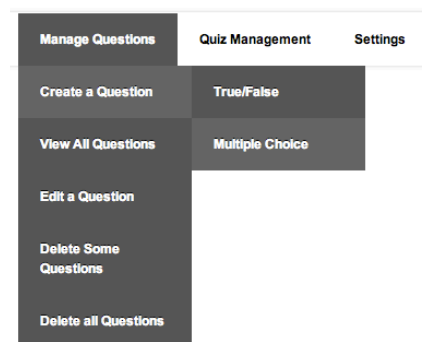
10. login to the admin page using [http://localhost/quiz\\_system\\_git/login.php](http://localhost/quiz_system_git/login.php)  
11. start the quiz @ [http://localhost/quiz\\_system\\_git/](http://localhost/quiz_system_git/)
-

## Features provided for the *Admin* in *admin.php* page-



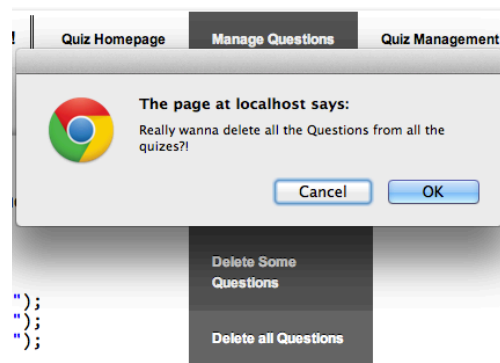
- Clicking on your **username** in the navbar *refreshes* the page.
- **Quiz Homepage** opens the *Instructions* page in a new tab.

### *Manage Questions-*



- **Create a Question-**
  - *True/False* - Create a Question with 2 options- True and False.
  - *Multiple Choice* - Create a Question with 4 options.
- **View All Questions-**
  - Shows all the questions of all the quizzes on a single page along with the correct answers.
- **Edit a Question-**
  - Select one question from all the questions in all quizzes to edit.
- **Delete Some Questions-**
  - Select as many questions as you want to delete from the database.

- **Delete All Questions-**
  - Deletes all the questions from all the quizzes, but leaves the quizzes intact.

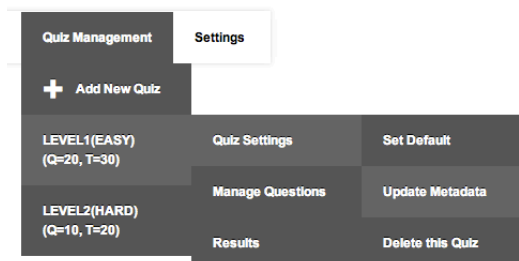


## Quiz Management-

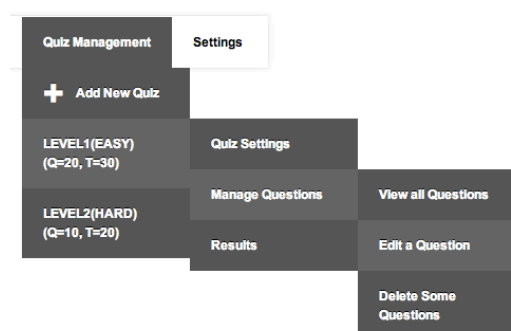
- **Add New Quiz-**
  - Add a new quiz to the database and allot the Duration for the quiz, and Max no. of Questions to be displayed to the users.
- Further list contains **QuizName** along with the time and no. of questions allotted to it.

## # Hovering over a QuizName-

- **Quiz Settings**

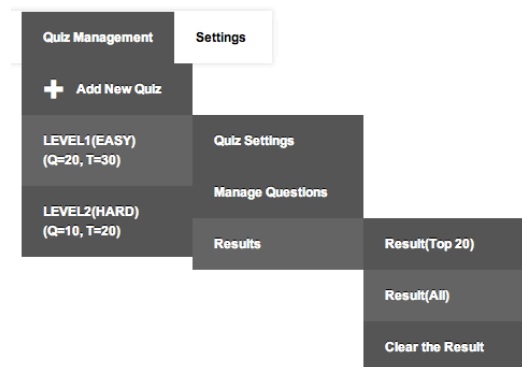


- *Set Default* - Sets the quiz as default i.e. it will be the one USER will be attempting.
  - *Update Metadata* - edit the Duration for the quiz, and Max no. of Questions to be displayed.
  - *Delete this Quiz* - Deletes the quiz along with all its questions.
- **Manage Questions**



- *View All Questions* - Shows all Questions of the quiz
  - *Edit a Question* - Edit a single question from the quiz
  - *Delete Some Questions* - Delete some questions from the quiz

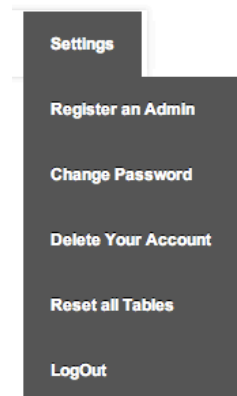
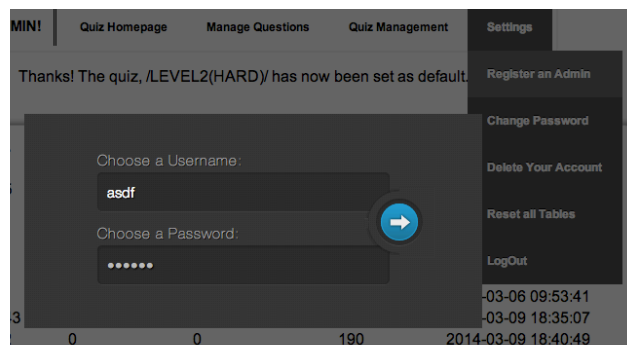
- **Results**



- *Result(Top 20)* - Shows the top 20 Rank Holders.
- *Result(All)* - Shows all the users, sorted according to rank.
- *Clear the Result* - Delete all records of the users who took this quiz.

## **Settings**

- *Register an Admin*
  - Register a new admin



- *Change Password*
    - Change password to your account
  - *Delete Your Account*
    - Delete Your admin account
  - *Reset All Tables*
    - Truncates all tables and sets one admin ID as default (*admin, 12345*)
  - *LogOut*
    - Log out of your admin account.
-

## Interface for Creating/Editing a Question

### True or false

Select the quiz in which to enter the Question LEVEL1(EASY)

Please type your new question here:

Would the output be 2?

If there's a programming code, enter here

Select Language of the code: C/C++

```
1 void main(){
2     int a=2;
3     cout<<a;
4 }
```

Select whether true or false is the Correct Answer

☒ True ☐ Correct Answer?

☐ False ☐ Correct Answer?

[Add To Quiz](#)

### Multiple Choice

Select the quiz in which to enter the Question LEVEL1(EASY)

Please type your new question here:

What's the output?

If there's a programming code, enter here

Select Language of the code: CSS

```
1 body{
2     background-color: BLACK;
3     margin: auto;
4 }
```

First Option

☒ Black background ☐ Correct Answer?

Second Option

☐ White background ☐ Correct Answer?

Third Option

☐ Blue background ☐ Correct Answer?

Fourth Option

☐ Brown background ☐ Correct Answer?

[Add To Quiz](#)

1. Select/re-select the quiz to which you want to add/transfer the question.
  - o If there are no quizzes in the dropdown, create a Quiz first.
2. Type/Change your Question.
3. If there's a program/code in the question,
  - o Select/Change Language of the code
  - o Add/Edit the code below
4. If adding a True/False Question-
  - o Select the correct answer
5. If adding a Multiple Choice Question-
  - o Write/Edit the 4 options(single lined) and choose the correct one.
6. Click Add to quiz/Save.

## Interface for Viewing/SelectingForEdit/DeletingSome Questions

Hello, ADMIN! | Quiz Homepage | **Manage Questions** | Quiz Management | Settings

Create a Question

View All Questions

Edit a Question

Delete Some Questions

Delete all Questions

(LEVEL1(EASY))

1. If the output of the question is hai , find the

```
1 main()
2 {
3     printf("\nab");
4     printf("\bsi");
5     printf("\aha");
6
7 }
```

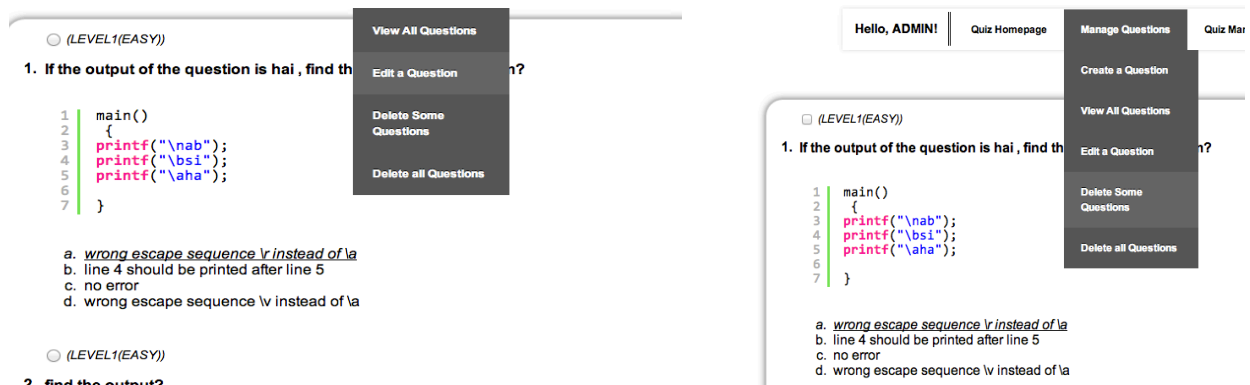
a. wrong escape sequence \r instead of \a  
b. line 4 should be printed after line 5  
c. no error  
d. wrong escape sequence \v instead of \a

(LEVEL1(EASY))

2. find the output?

```
1 void main()
2 {
3     int i=1,y;
4     y=i---i---i;
5     cout<<y<<" "<<i;
6     getch();
7 }
```

a. -1,-1  
b. 0,-1



1. Quiz\_Name is displayed above its question.
2. If there's code, it'll be displayed after the text part of the Question.
3. Options are displayed below.
4. Correct answer is Underlined and Emphasised!
5. You can select only 1 question for editing.
6. You can select any number of questions to delete.

## Result Interface

Rank	Roll No.	Marks	Percentage	Time	Timestamp
1	456789	1	11.111111111111		
2	1139095	1	11.111111111111		
3	1qaz22	0	0		
4	yoyo	0	0		
5	1qaz	0	0		
6	0987	0	0		
7	1245	0	0		
8	877656443	0	0		
9	11qaz22	0	0		
10	45698777	0	0		
11	123321	0	0		

1. List is already sorted according to their **ranks**.
2. Ranks are decided on the basis of *highest marks first*, followed by the *time taken by the user* to finish the quiz.
3. TimeStamp contains the time user started the quiz.



## Features provided in other pages

# index.php(Instructions page)

# Your Header goes here

**So, you want to try your luck at the QUIZ**

LEVEL1(EASY)

**Here are the rules then:**

- You've got 30 mins for attempting 20 questions.
- If time runs out, your quiz will automatically be submitted
- You'll only be getting confirmation pop-up once if you try to leave during the quiz
- You can only attempt the quiz once

**GOOD LUCK!**

Enter Your Roll No.

Click below when you are ready to start the quiz

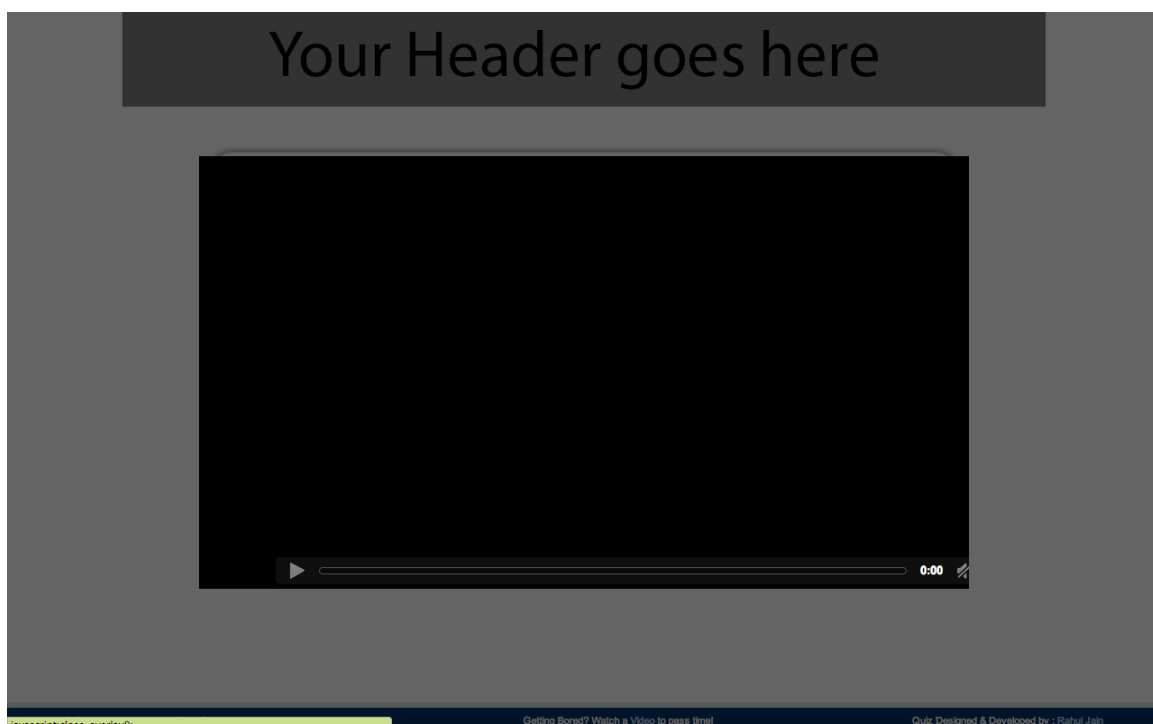
Click Here to Begin

© Copyright 2014, under GNU General Public License

Getting Bored? Watch a [Video](#) to pass time!

Quiz Designed & Developed by : [Rahul Jain](#)

1. Quiz name along with no. of questions to display and durations is displayed here.
2. An overlay is provided, currently used to display a video to the user while they wait to start the quiz.
3. User can't proceed without entering the username/RollNo.
4. User can't attempt the same quiz twice.
5. HTML can be edited to add your own rules and the like.
6. Right-click is disabled.



## # quiz.php(Quiz page)

Your Header goes here

LEVEL1(EASY)

Time Remaining: 29:35

1. all strings end up with a null zero....  
☐ True  
☐ False

2. tick the correct  

```
1 void main ( )
2
3 {
4
5     char *p = "ayqm" ;
6
7     char c;
8
9     c = ++*p ;
10
11     printf ("%c", c);
12
13 }
```

☐ compilation error

© Copyright 2014, under GNU General Public License

Getting Bored? Watch a [Video](#) to pass time!

Quiz Designed & Developed by : [Rahul Jain](#)

1. Quiz name is displayed on the top
2. Countdown is fixed & displayed on the top-right of the screen.
3. At zero the quiz will automatically be submitted.
4. There's no negative marking.
5. User can answer none, some or all the questions.
6. Code/Program will be displayed in color-coded format.
7. A confirmation dialog will pop-up if the user tries to close, refresh or navigate away from this page.
8. Right-click is disabled.
9. An overlay is provided, currently used to display a video to the user during the quiz.
10. User can't directly access this page.

## # result.php(Result page)

Your Header goes here

1221, You scored 5/20

© Copyright 2014, under GNU General Public License

Getting Bored? Watch a [Video](#) to pass time!

Quiz Designed & Developed by : [Rahul Jain](#)

Your Header goes here

Nice Try, But its time to go now!  
You should have watched it before..

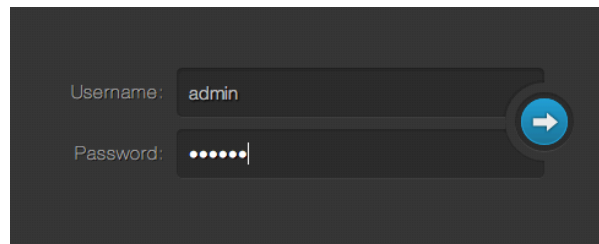
© Copyright 2014, under GNU General Public License

Getting Bored? Watch a [Video](#) to pass time!

Quiz Designed & Developed by : [Rahul Jain](#)

1. Marks of the user are displayed here(1 mark per correct answer).
2. An overlay is provided, currently used to display a message to the user on click.
3. User can't directly access this page.
4. if user clicks on back and goes back to the quiz, he can't resubmit the quiz.

## # login.php(Admin-Login page)



A screenshot of a dark-themed login form. It has two input fields: 'Username:' with the text 'admin' and 'Password:' with masked characters '.....'. To the right of the password field is a blue circular button with a white right-pointing arrow.

1. A user can login from multiple systems at the same time.
2. User can't access admin page before logging in.
3. Using sessions to store the session of an admin. Re-login isn't necessary as long as the admin doesn't click logOut.

---

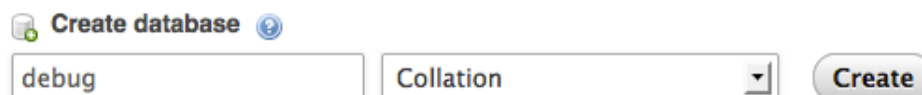
## Miscellaneous features

1. Using *codemirror* to have a better textarea input for programs/codes.
2. Using *syntax highlighter* to display the code better in a question.
3. A lot of *MYSQL error checks* are in place in case of some unknown error.
4. Basic **failsafes** are in place for things like *SQL injection*.
5. Layout is designed keeping *different window sizes* in mind.
6. It isn't designed to work on **Internet Explorer** also. So, it might be displayed differently on that(Styling difference).
7. None of the other pages can be accessed directly except the **logout.php** as it can only be accessed by the admin to logout.

---

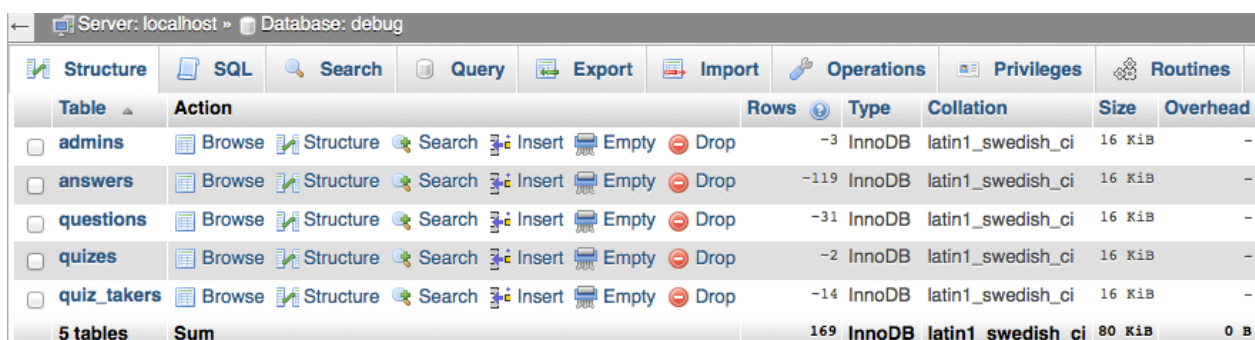
## Database

### # Create a Database



A screenshot of a 'Create database' form. It has a text input field containing 'debug', a dropdown menu for 'Collation', and a 'Create' button.

### # Database-



A screenshot of a database management tool interface. The top bar shows 'Server: localhost » Database: debug'. Below it is a menu with 'Structure', 'SQL', 'Search', 'Query', 'Export', 'Import', 'Operations', 'Privileges', and 'Routines'. The main area displays a table structure for 'debug' with columns: Table, Action, Rows, Type, Collation, Size, and Overhead. The table lists five tables: 'admins', 'answers', 'questions', 'quizes', and 'quiz\_takers'. Each table has a 'Browse' button, a 'Structure' icon, a 'Search' icon, an 'Insert' icon, an 'Empty' icon, and a 'Drop' icon. The 'Sum' row shows 5 tables, 169 rows, InnoDB type, latin1\_swedish\_ci collation, 80 KiB size, and 0 B overhead.

Table	Action	Rows	Type	Collation	Size	Overhead
admins	Browse Structure Search Insert Empty Drop	-3	InnoDB	latin1_swedish_ci	16 KiB	-
answers	Browse Structure Search Insert Empty Drop	-119	InnoDB	latin1_swedish_ci	16 KiB	-
questions	Browse Structure Search Insert Empty Drop	-31	InnoDB	latin1_swedish_ci	16 KiB	-
quizes	Browse Structure Search Insert Empty Drop	-2	InnoDB	latin1_swedish_ci	16 KiB	-
quiz_takers	Browse Structure Search Insert Empty Drop	-14	InnoDB	latin1_swedish_ci	16 KiB	-
5 tables	Sum	169	InnoDB	latin1_swedish_ci	80 KiB	0 B

## # Table – admins

← Server: localhost » Database: debug » Table: admins								
Browse		Structure	SQL	Search	Insert	Export	Import	
#	Name	Type	Collation	Attributes	Null	Default	Extra	
<input type="checkbox"/> 1	<b>id</b>	int(11)			No	None	AUTO_INCREMENT	
<input type="checkbox"/> 2	<b>username</b>	varchar(50)	latin1_swedish_ci		No	None		
<input type="checkbox"/> 3	<b>password</b>	varchar(50)	latin1_swedish_ci		No	None		
<input type="checkbox"/> 4	<b>last_login</b>	datetime			No	0000-00-00 00:00:00		

## # Table – quizzes

← Server: localhost » Database: debug » Table: quizzes								
Browse		Structure	SQL	Search	Insert	Export	Import	
#	Name	Type	Collation	Attributes	Null	Default	Extra	
<input type="checkbox"/> 1	<b>id</b>	int(11)			No	None	AUTO_INCREMENT	
<input type="checkbox"/> 2	<b>quiz_id</b>	int(11)			No	None		
<input type="checkbox"/> 3	<b>quiz_name</b>	varchar(50)	latin1_swedish_ci		No	None		
<input type="checkbox"/> 4	<b>total_questions</b>	int(11)			No	None		
<input type="checkbox"/> 5	<b>display_questions</b>	int(11)			No	None		
<input type="checkbox"/> 6	<b>time_allotted</b>	int(11)			No	None		
<input type="checkbox"/> 7	<b>set_default</b>	int(1)			No	None		

## # Table – questions

← Server: localhost » Database: debug » Table: questions								
Browse		Structure	SQL	Search	Insert	Export	Import	
#	Name	Type	Collation	Attributes	Null	Default	Extra	Act
<input type="checkbox"/> 1	<b>id</b>	int(11)			No	None	AUTO_INCREMENT	
<input type="checkbox"/> 2	<b>quiz_id</b>	int(11)			No	None		
<input type="checkbox"/> 3	<b>question_id</b>	int(11)			No	None		
<input type="checkbox"/> 4	<b>question</b>	varchar(255)	latin1_swedish_ci		No	None		
<input type="checkbox"/> 5	<b>code</b>	varchar(9999)	latin1_swedish_ci		No	None		
<input type="checkbox"/> 6	<b>code_type</b>	varchar(30)	latin1_swedish_ci		No	None		
<input type="checkbox"/> 7	<b>type</b>	varchar(2)	latin1_swedish_ci		No	None		

## # Table – answers

← Server: localhost » Database: debug » Table: answers									
Browse            Structure            SQL            Search            Insert            Export            Import									
	#	Name	Type	Collation	Attributes	Null	Default	Extra	Act
<input type="checkbox"/>	1	<u>id</u>	int(11)			No	None	AUTO_INCREMENT	
<input type="checkbox"/>	2	quiz_id	int(11)			No	None		
<input type="checkbox"/>	3	question_id	int(11)			No	None		
<input type="checkbox"/>	4	answer	varchar(255)	latin1_swedish_ci		No	None		
<input type="checkbox"/>	5	correct	enum('0', '1')	latin1_swedish_ci		No	None		

## #Table – quiz\_takers

← Server: localhost » Database: debug » Table: quiz_takers									
Browse            Structure            SQL            Search            Insert            Export            Import            Options									
	#	Name	Type	Collation	Attributes	Null	Default	Extra	
<input type="checkbox"/>	1	<u>id</u>	int(11)			No	None	AUTO_INCREMENT	
<input type="checkbox"/>	2	username	varchar(255)	latin1_swedish_ci		No	None		
<input type="checkbox"/>	3	quiz_id	int(11)			No	None		
<input type="checkbox"/>	4	marks	int(11)			No	None		
<input type="checkbox"/>	5	percentage	varchar(24)	latin1_swedish_ci		No	None		
<input type="checkbox"/>	6	date_time	datetime			No	0000-00-00 00:00:00		
<input type="checkbox"/>	7	duration	int(11)			No	None		