Automation of Power lifting Competition Scoreboard

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Abstract-Powerlifting the word is a strength sport that consists of three attempts at maximum weight on three lifts and they are Squat, Bench-Press, Deadlift. In competition lifts may be performed Equipped or Un-Equipped . Based on the weight classes competitors participate in their respective weight classes and results will be displayed for each category separately. The aim of the paper is to develop a "Automation of Powerlifting Competition Scoreboard" and this paper meets the expectations of "Powerlifting India" and other states powerlifting associations in India.

1. INTRODUCTION

The paper is titled as "Automation of Powerlifting Competition Scoreboard" which is an application that displays competitor profile scoreboard and summary. This paper is mainly implemented to create a display to the lifter and audience in the competition. As there is no visualized look in the competition lifters those who compete with other competitors are unable to predict their further lifts in the event. In order to overcome such complications we have created an application using the latest technologies.

2. ARCHITECTURE

This "APCS" system uses MVC (Model View Controller) architecture to develop. It uses ORM (Object Relational Mapping) technique to access or store data from database. Here, the client sends requests to the application server and it sends to the database server and the SQL query and then again from SQL query to database server and then to application server and finally to client. Hibernate is used to adopt and use ORM technology. It maps the data to the database as objects and maps database as a object.

Sequence Diagram
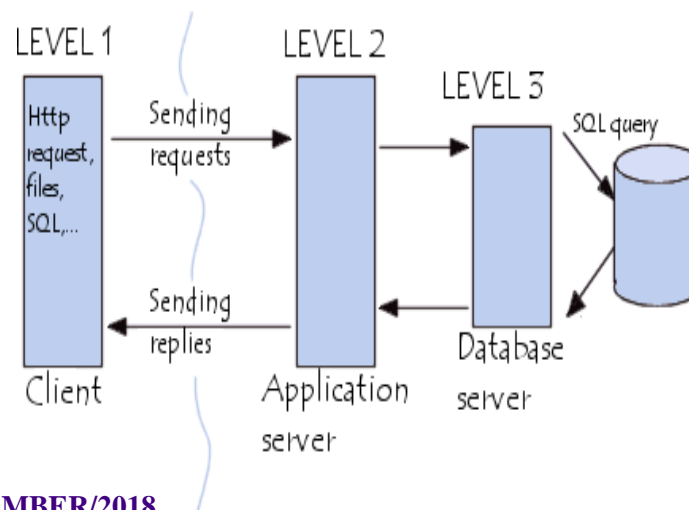
A sequence diagram is an interaction diagram and here it starts from the admin ask details to the member and member asends details to admin and admin sends data to database and admin provides lot number to member and database takes data using lot number and member gives his details to admin and admin sends to database and finally admin retrieve data and provide scoreboard and summary of the event.
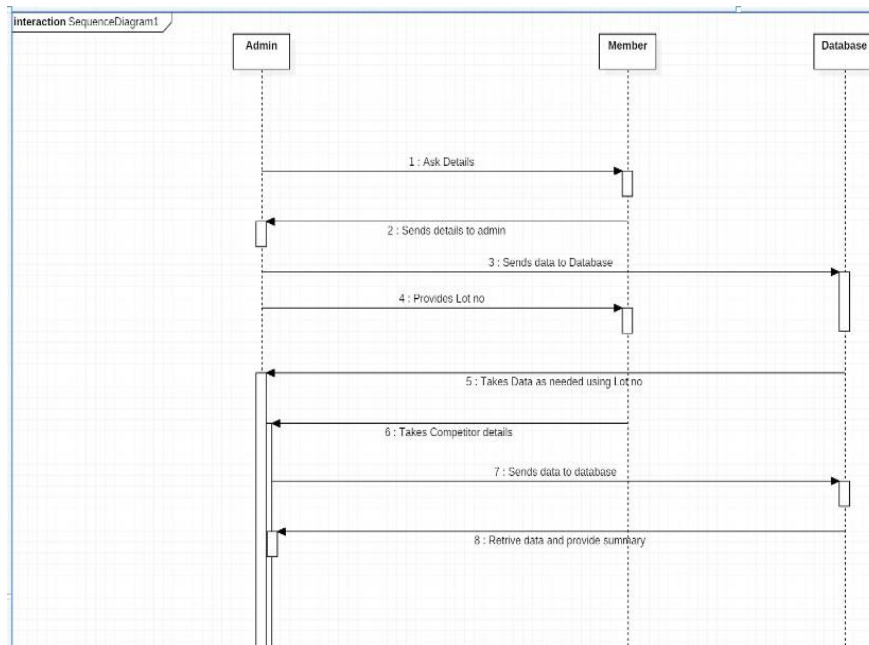
Modular Description

3.   AUTOMATION OF POWERLIFTING COMPETITION SCOREBOARD CONTAINS ONLY ONE MODULE.

Admin: Filling the participant details and Generating the scoreboard. Admin fills the details of each participant by the details given in the application. Admin generates the scoreboard by the unique lot number given to each participant in the competition.

4.   IMPLEMENTATION

Automation of powerlifting competition score board works in the following procedure. In this there are two types of user will work, first the main user will work as a administrator for the application in which the admin access all the records and updates the information according to the response.

Initially the admin logs into the application with necessary credentials and allocates a lot number(Unique ID) which is used to sort out the players in the weight category. Once it is completed then the scoreboard page collects all details of the players and displays in the summary page. This summary page contains the brief information of the competitors. This is the only page which can be accessed by the second type of user.

Fig: Scoreboard Page

Lotno	Name	State	District	wtcat	Body wt	SQ1	SQ2	SQ3	SB	BP1	BP2	BP2	ST	DL1	DL2	DL3	TOT	WP	RANK	POINTS
		Group				**Squat**				**Bench Press**				**Dead Lift**						
E661	SVK CHAITANYA	AP	vizag	66	66	135	null	null	null	75	null	null	null	180	null	null	null	null	null	undefined
E662	T SAI SRIRAM	AP	vizag	66	65	60	null	null	null	60	null	null	null	55	null	null	null	null	null	undefined
E663	P V SANDEEP	AP	vizag	66	64	120	null	null	null	120	null	null	null	120	null	null	null	null	null	undefined
E664	S ACHARI	AP	vizag	66	63	65	null	null	null	54	null	null	null	54	null	null	null	null	null	undefined
E667	B CHINODU	AP	vizag	66	64	54	null	null	null	55	null	null	null	56	null	null	null	null	null	undefined

Fig: Summary Report

Test Cases

Test Case	Condition Being Checked	Expected Output	Actual Output
Any compulsory field not selected	Checking required fields	Please fill required fields	Please fill required fields
Incorrect Username	Read name	Name should be in characters	Name should be in characters
Invalid Password	Read Age	Password must be in characters	Password must be in characters

Table: Admin Filling Form Details

Test Case	Condition Being Checked	Expected Output	Actual Output
When a dataset selected for display.	Checking the format of the file.	File Format is invalid.	File Format is Invalid.
When the dataset is copied to MySql Environment.	Checking whether the data is present in the file.	Data is present in the File.	There is no data in the file.

Table: Validations on File

Test Case	Condition Being Checked	Expected Output	Actual Output
Performing visualization	Selecting the fields for visualization	Please fill select the correct field	Please fill select the correct field
Invalid data for visualization	Checking data available for visualization	Visualization is done.	Visualization cannot be done
Submitting valid for summary	Generate report	Redirect to summary page	Redirect to summary page

Table: Result

5.   CONCLUSION

This application presents the part of an individual work as per the requirements, specifications and conditions mentioned in the scoreboard. This paper has been written for the beneficial of the people who are participating in Powerlifting championships and for the Powerlifting India. We are sure that this project would be useful for managing their data and displaying their scores on the scoreboard. It is user friendly and has all the needed menu options, which can be utilized by the user to perform the desired operations.

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