

Software Construction

Lab 5

Submitted by:

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BESE - 5A

Lab Task

Add a persistent layer to the Restaurant Reservation System, you made in the previous lab.

If you haven't done the previous lab, now is a good time to start.

Add authentication for all local reservations.

Log critical events in your application.

Ensure your implementation is correct by checking the requirements from the previous Unit Tests.

Ensure the authentication system works with the help of a new unit test.

APPROACH:

- 1- Make a dictionary of tables and restaurant capacity. assume each booking needs one hour, then allocate tables to each booking.
- 2- All bookings will be kept in a list and later dumped to a file. The program will ask user for the number of people and table size they need and then book that table for them
- 3- User can enter the time he wants and then program will check availability and give booking if time is available and no booking in one hour range before or after that.
- 4- Sql database is created and it has following two tables:

Tables:

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
<input type="checkbox"/>	1	name	varchar(255)	utf8_general_ci	No	None		Change Drop Primary Unique Index More
<input type="checkbox"/>	2	time	float		No	None		Change Drop Primary Unique Index More
<input type="checkbox"/>	3	duration	float		No	None		Change Drop Primary Unique Index More
<input type="checkbox"/>	4	table_name	varchar(11)	utf8_general_ci	No	None		Change Drop Primary Unique Index More
<input type="checkbox"/>	5	table_id	int(11)		No	None		Change Drop Primary Unique Index More
<input type="checkbox"/>	6	booking_id	int(11)		No	None	AUTO_INCREMENT	Change Drop Primary Unique Index More

Servers:

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
<input type="checkbox"/>	1	username	varchar(255)	utf8mb4_general_ci	No	None		Change Drop Primary Unique Index Spatial More
<input type="checkbox"/>	2	password	varchar(255)	utf8_general_ci	No	None		Change Drop Primary Unique Index Spatial Fulltext More

The bookings list from lab 4 is now stored in the database.

The test cases are:

- 1- For booking normal table
- 2- For booking out of time
- 3- for booking extra large table

4- for booking extra large table with duration exceeding time

Output:

+ Options

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Github link:

<https://github.com/NoorZia/SoftwareConstructionlabs>