INFSCI 2710

Database Management

Alekhya Manem (ALM413), Anirban Sen (ANS331) & Lakshmi Ravichandran (LAR146)

Title: Book My Sport

Technologies Used:

Frontend: AngularJS

Backend: Java JDBC

Database: MySQL

Description:

"Book My Sport" is an online ticket booking application for sports events. The application covers 6 major cities of the United States, providing ticket booking facility across 30+ stadiums and covering multiple sports.

The web application allows the user to search sports events by event name, stadium, city and sport. The user can select an event from the list of events displayed on the result page. In the event description page the user can select type of seat (VIP or Regular) and number of seats for two categories (adults and children). On selecting the type and number of seats the user can checkout and pay using their card details or bank account details and generate a ticket.

The web application also has an interactive google maps page. On selecting a city from the search page, the user lands on a Google Maps page where all the stadiums of that area are highlighted. These Google Maps Markers are clickable and on click take the user to result page where the events are filtered as per the stadium selected.

Assumptions:

1. All stadiums have the same capacity i.e. 150 total, out of which 100 is for regular seats and 50 for VIP seats.
2. Seats allocation is random and not numbered. The user selects the type of seats and number of seats.
3. The user can search only use one word at a time while searching for events.

Database Tables:

customer: Contains basic details of the customer such as name, email(username) and phone number.

login_creds : Contains the passwords for customers. The passwords were kept out of the customer table for security reasons.

event_list : Contains all the events and its required details suchas event name, event location, event time, participating teams etc.

field_details : Stadium details consisting of name, address, capacity, latitude & longitude etc.

Seat_details : Contains the rates for each category of seat in different stadiums.

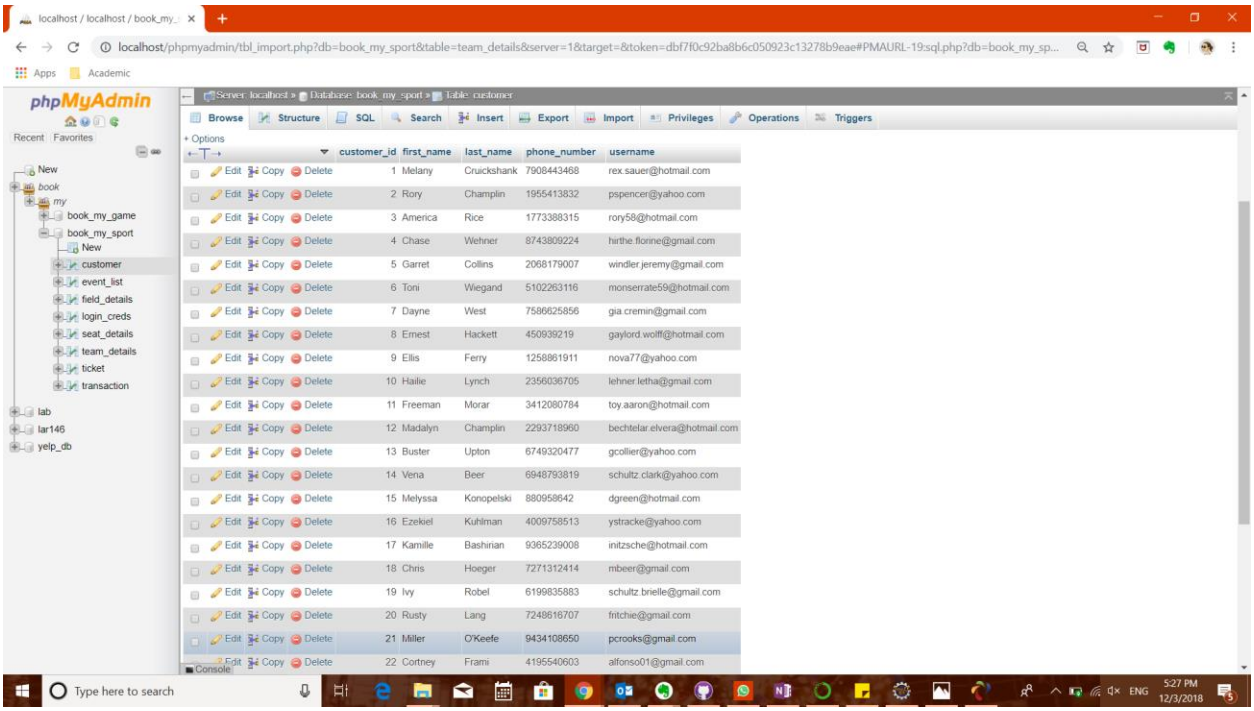
Team_details : Contains team name, sport played, total win, loss count etc.

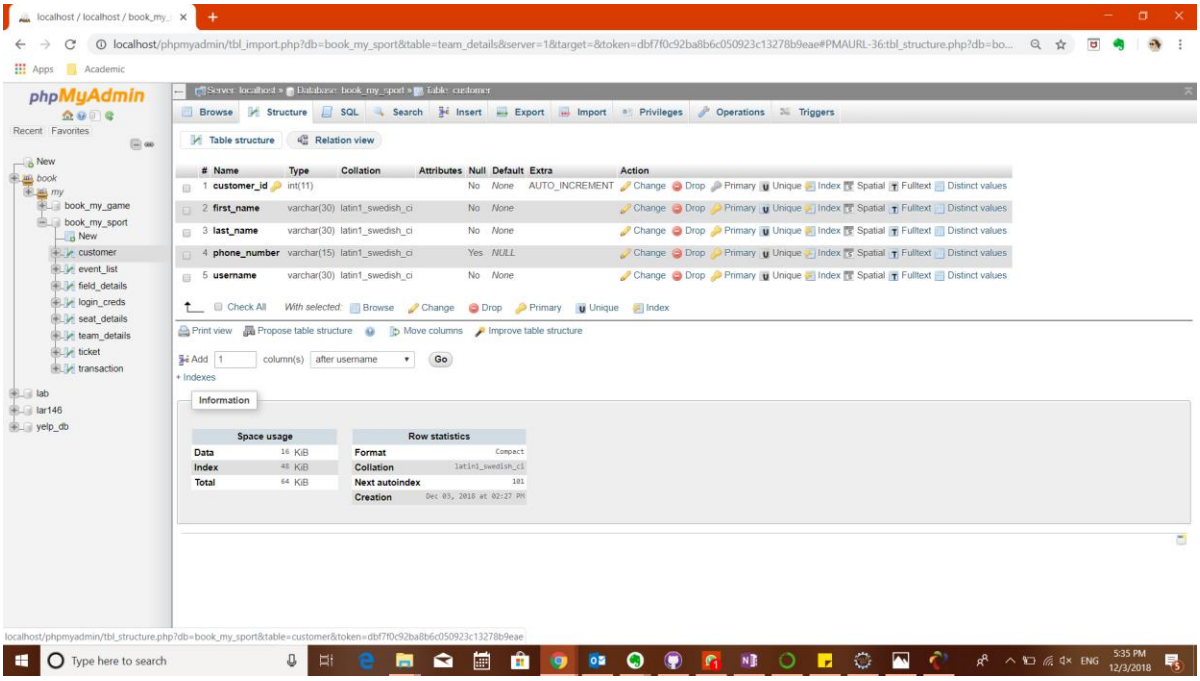
Transaction: Stores the details and the mode of payment used by the customer to pay for their ticket.

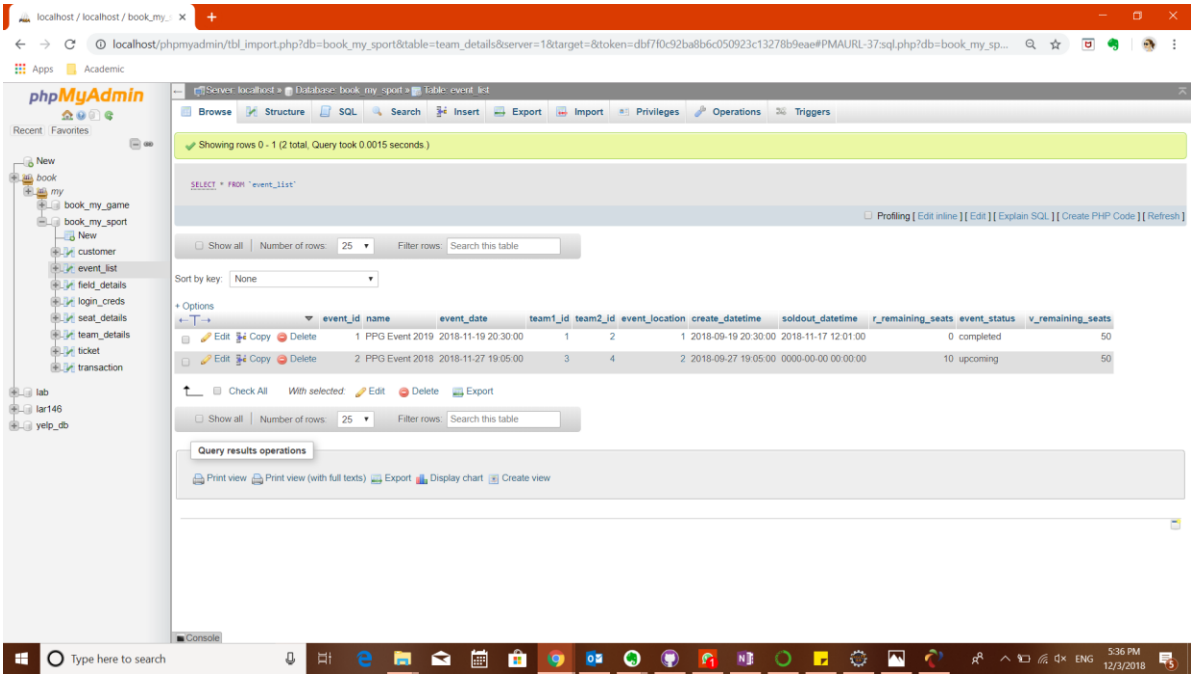
Ticket: After a transaction is completed a ticket record is created consisting of event details, customer details and transaction details.

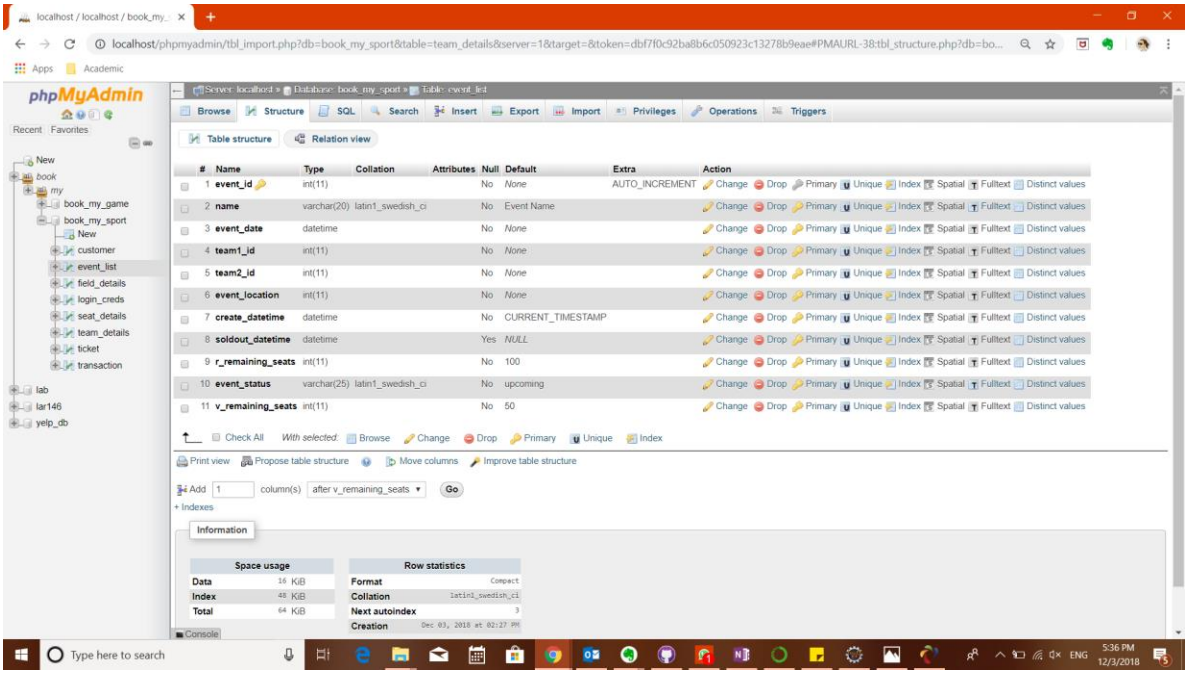
Database Schema:

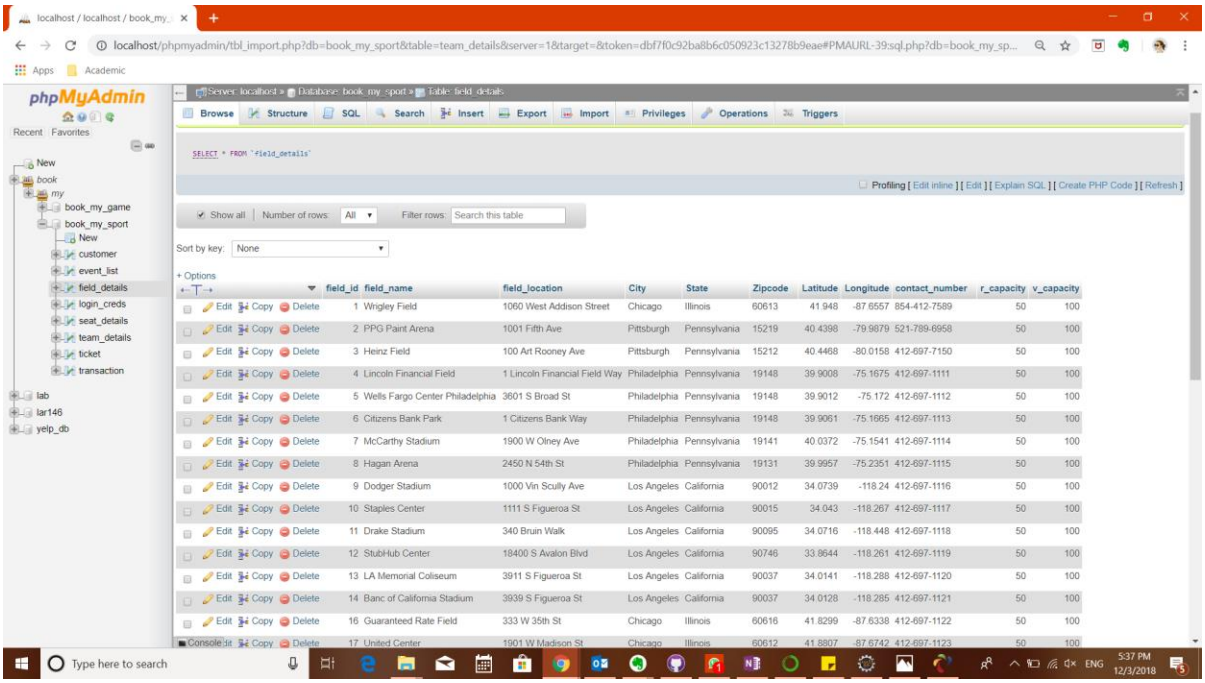
Customer Table:

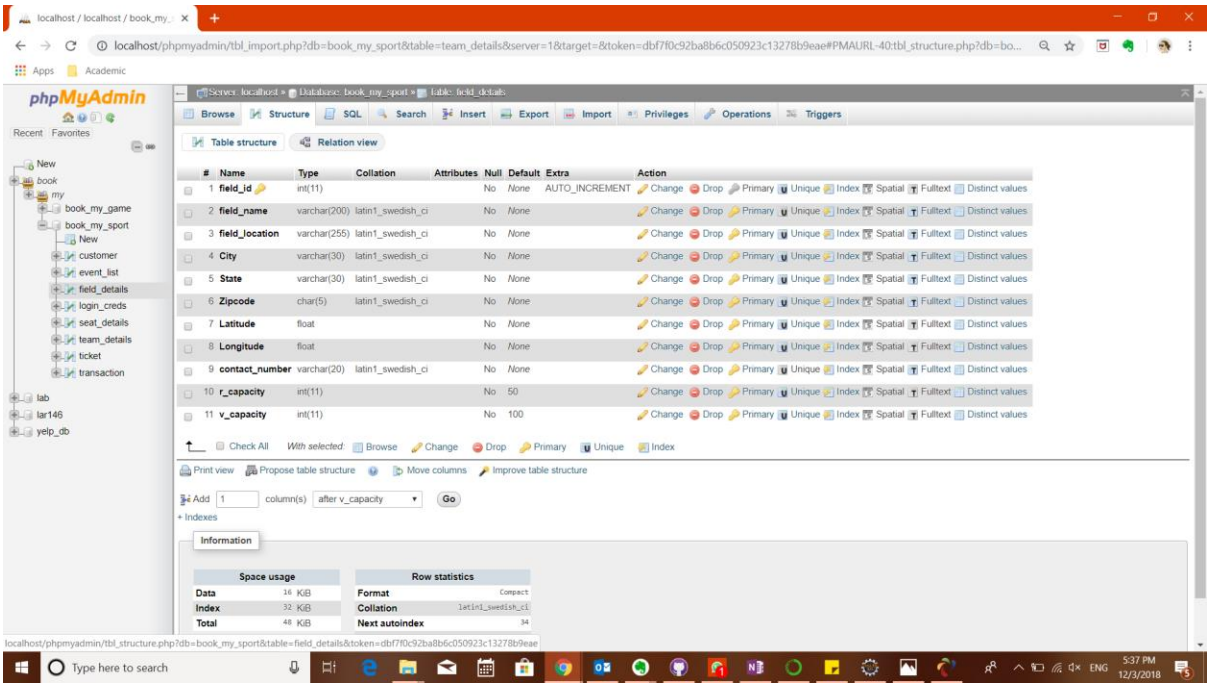

phpMyAdmin
Server: localhost » Database: book_my_sport » Table: customer
Browse Structure SQL Search Insert Export Import Privileges Operations Triggers
customer_id first_name last_name phone_number username
1 Melany Cruickshank 7908443468 rex.sauer@hotmail.com
2 Rory Champlin 1955413832 pspencer@yahoo.com
3 America Rice 1773388315 rory58@hotmail.com
4 Chase Wehner 8743809224 hirthe.florine@gmail.com
5 Garret Collins 2068179007 windler.jeremy@gmail.com
6 Toni Wiegand 5102263116 monserrate59@hotmail.com
7 Dayne West 7586625856 gia.cremin@gmail.com
8 Ernest Hackett 450939219 gaylord.wolff@hotmail.com
9 Ellis Ferry 1258861911 nova77@yahoo.com
10 Hailie Lynch 2356036705 lehner.letha@gmail.com
11 Freeman Morar 3412080784 toy.aaron@hotmail.com
12 Madalyn Champlin 2293718960 bechtelar.elvera@hotmail.com
13 Buster Upton 6749320477 gcollier@yahoo.com
14 Vena Beer 6948793819 schultz.clark@yahoo.com
15 Melyssa Konopelski 880958642 dgreen@hotmail.com
16 Ezekiel Kuhlman 4009758513 ystracke@yahoo.com
17 Kamille Bashirian 9365239008 initzsche@hotmail.com
18 Chris Hoeger 7271312414 mbeer@gmail.com
19 Ivy Robel 6199835883 schultz.brielle@gmail.com
20 Rusty Lang 7248616707 fritchie@gmail.com
21 Miller O'Keefe 9434108650 pcrooks@gmail.com
22 Cortney Frami 4195540603 alfonso01@gmail.com


phpMyAdmin
Server: localhost » Database: book_my_sport » Table: customer
Table structure Relation view
Name Type Collation Attributes Null Default Extra Action
1 customer_id int(11) No None AUTO_INCREMENT
2 first_name varchar(30) latin1_swedish_ci No None
3 last_name varchar(30) latin1_swedish_ci No None
4 phone_number varchar(15) latin1_swedish_ci Yes NULL
5 username varchar(30) latin1_swedish_ci No None
Information
Space usage
Data 16 KiB
Index 48 KiB
Total 64 KiB
Row statistics
Format Compact
Collation latin1_swedish_ci
Next autoindex 101
Creation Dec 03, 2018 at 02:27 PM


phpMyAdmin
Server: localhost » Database: book_my_sport » Table: event_list
Browse Structure SQL Search Insert Export Import Privileges Operations Triggers
Showing rows 0 - 1 (2 total, Query took 0.0015 seconds.)
SELECT * FROM `event_list`
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP Code] [Refresh]
Show all | Number of rows: 25 Filter rows: Search this table
Sort by key: None
+ Options
event_id name event_date team1_id team2_id event_location create_datetime soldout_datetime r_remaining_seats event_status v_remaining_seats
Edit Copy Delete 1 PPG Event 2019 2018-11-19 20:30:00 1 2 1 2018-09-19 20:30:00 2018-11-17 12:01:00 0 completed 50
Edit Copy Delete 2 PPG Event 2018 2018-11-27 19:05:00 3 4 2 2018-09-27 19:05:00 0000-00-00 00:00:00 10 upcoming 50
Check All With selected: Edit Delete Export
Query results operations
Print view Print view (with full texts) Export Display chart Create view
Console
Type here to search
ENG 5:36 PM 12/3/2018


phpMyAdmin
Server: localhost » Database: book_my_sport » Table: event_list
Browse Structure SQL Search Insert Export Import Privileges Operations Triggers
Table structure Relation view
Name Type Collation Attributes Null Default Extra Action
1 event_id int(11) No None AUTO_INCREMENT
2 name varchar(20) latin1_swedish_ci No Event Name
3 event_date datetime No None
4 team1_id int(11) No None
5 team2_id int(11) No None
6 event_location int(11) No None
7 create_datetime datetime No CURRENT_TIMESTAMP
8 soldout_datetime datetime Yes NULL
9 r_remaining_seats int(11) No 100
10 event_status varchar(25) latin1_swedish_ci No upcoming
11 v_remaining_seats int(11) No 50
Change Drop Primary Unique Index Spatial Fulltext Distinct values
Check All With selected: Browse Change Drop Primary Unique Index
Print view Propose table structure Move columns Improve table structure
Add 1 column(s) after v_remaining_seats Go
+ Indexes
Information
Space usage
Data 16 KiB
Index 48 KiB
Total 64 KiB
Row statistics
Format Compact
Collation latin1_swedish_ci
Next autoindex 3
Creation Dec 03, 2018 at 02:27 PM
Console
Type here to search
ENG 5:36 PM 12/3/2018


phpMyAdmin
Server: localhost » Database: book_my_sport » Table: field_details
Browse Structure SQL Search Insert Export Import Privileges Operations Triggers
SELECT * FROM `field_details`
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP Code] [Refresh]
Show all | Number of rows: All Filter rows: Search this table
Sort by key: None
+ Options
field_id field_name field_location City State Zipcode Latitude Longitude contact_number r_capacity v_capacity
1 Wrigley Field 1060 West Addison Street Chicago Illinois 60613 41.948 -87.6557 854-412-7589 50 100
2 PPG Paint Arena 1001 Fifth Ave Pittsburgh Pennsylvania 15219 40.4398 -79.9879 521-789-6958 50 100
3 Heinz Field 100 Art Rooney Ave Pittsburgh Pennsylvania 15212 40.4468 -80.0158 412-697-7150 50 100
4 Lincoln Financial Field 1 Lincoln Financial Field Way Philadelphia Pennsylvania 19148 39.9008 -75.1675 412-697-1111 50 100
5 Wells Fargo Center Philadelphia 3601 S Broad St Philadelphia Pennsylvania 19148 39.9012 -75.172 412-697-1112 50 100
6 Citizens Bank Park 1 Citizens Bank Way Philadelphia Pennsylvania 19148 39.9061 -75.1665 412-697-1113 50 100
7 McCarthy Stadium 1900 W Olney Ave Philadelphia Pennsylvania 19141 40.0372 -75.1541 412-697-1114 50 100
8 Hagan Arena 2450 N 54th St Philadelphia Pennsylvania 19131 39.9957 -75.2351 412-697-1115 50 100
9 Dodger Stadium 1000 Vin Scully Ave Los Angeles California 90012 34.0739 -118.24 412-697-1116 50 100
10 Staples Center 1111 S Figueroa St Los Angeles California 90015 34.043 -118.267 412-697-1117 50 100
11 Drake Stadium 340 Bruin Walk Los Angeles California 90095 34.0716 -118.448 412-697-1118 50 100
12 StubHub Center 18400 S Avalon Blvd Los Angeles California 90746 33.8644 -118.261 412-697-1119 50 100
13 LA Memorial Coliseum 3911 S Figueroa St Los Angeles California 90037 34.0141 -118.288 412-697-1120 50 100
14 Banc of California Stadium 3939 S Figueroa St Los Angeles California 90037 34.0128 -118.285 412-697-1121 50 100
16 Guaranteed Rate Field 333 W 35th St Chicago Illinois 60616 41.8299 -87.6338 412-697-1122 50 100
17 United Center 1901 W Madison St Chicago Illinois 60612 41.8807 -87.6742 412-697-1123 50 100
Type here to search
5:37 PM 12/3/2018


phpMyAdmin
Server: localhost » Database: book_my_sport » Table: field_details
Browse Structure SQL Search Insert Export Import Privileges Operations Triggers
Table structure Relation view
Name Type Collation Attributes Null Default Extra Action
1 field_id int(11) No None AUTO_INCREMENT Change Drop Primary Unique Index Spatial Fulltext Distinct values
2 field_name varchar(200) latin1_swedish_ci No None Change Drop Primary Unique Index Spatial Fulltext Distinct values
3 field_location varchar(255) latin1_swedish_ci No None Change Drop Primary Unique Index Spatial Fulltext Distinct values
4 City varchar(30) latin1_swedish_ci No None Change Drop Primary Unique Index Spatial Fulltext Distinct values
5 State varchar(30) latin1_swedish_ci No None Change Drop Primary Unique Index Spatial Fulltext Distinct values
6 Zipcode char(5) latin1_swedish_ci No None Change Drop Primary Unique Index Spatial Fulltext Distinct values
7 Latitude float No None Change Drop Primary Unique Index Spatial Fulltext Distinct values
8 Longitude float No None Change Drop Primary Unique Index Spatial Fulltext Distinct values
9 contact_number varchar(20) latin1_swedish_ci No None Change Drop Primary Unique Index Spatial Fulltext Distinct values
10 r_capacity int(11) No 50 Change Drop Primary Unique Index Spatial Fulltext Distinct values
11 v_capacity int(11) No 100 Change Drop Primary Unique Index Spatial Fulltext Distinct values
Check All With selected: Browse Change Drop Primary Unique Index
Print view Propose table structure Move columns Improve table structure
Add 1 column(s) after v_capacity Go
+ Indexes
Information
Space usage
Data 16 KiB
Index 32 KiB
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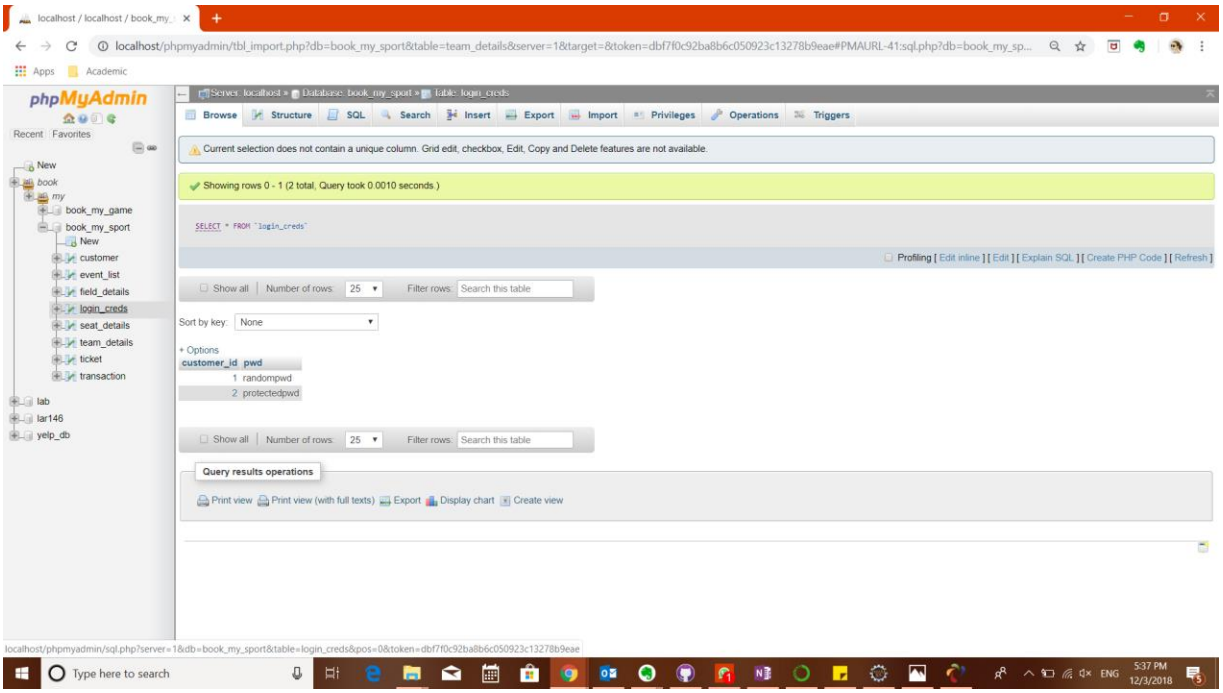
Row statistics
Format Compact
Collation latin1_swedish_ci
Next autoindex 34
Type here to search
5:37 PM 12/3/2018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localhost/phpmyadmin/tbl_import.php?db=book_my_sport&table=team_details&server=1&target=&token=dbf7f0c92ba8b6c050923c13278b9eae#PMAURL-41:sql.php?db=book_my_sp...
Apps
Academic
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Recent
Favorites
New
book
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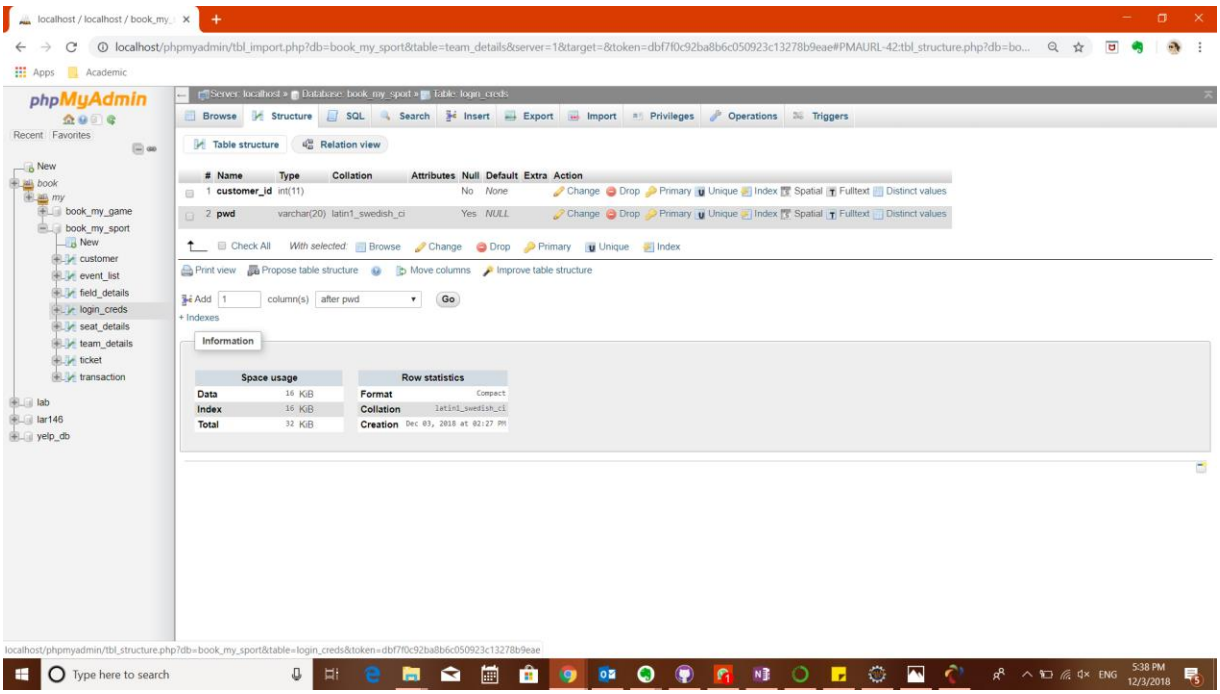
book_my_game
book_my_sport
New
customer
event_list
field_details
login_creds
seat_details
team_details
ticket
transaction
lab
lar146
yelp_db
Server: localhost » Database: book_my_sport » Table: login_creds
Browse
Structure
SQL
Search
Insert
Export
Import
Privileges
Operations
Triggers
Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.
Showing rows 0 - 1 (2 total, Query took 0.0010 seconds.)
SELECT * FROM `login_creds`
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP Code] [Refresh]
Show all
Number of rows: 25
Filter rows: Search this table
Sort by key: None
+ Options
customer_id pwd
1 randompwd
2 protectedpwd
Query results operations
Print view
Print view (with full texts)
Export
Display chart
Create view
localhost/phpmyadmin/sql.php?server=1&db=book_my_sport&table=login_creds&pos=0&token=dbf7f0c92ba8b6c050923c13278b9eae
Type here to search
ENG
5:37 PM
12/3/2018


localhost / localhost / book_my_
localhost/phpmyadmin/tbl_import.php?db=book_my_sport&table=team_details&server=1&target=&token=dbf7f0c92ba8b6c050923c13278b9eae#PMAURL-42:tbl_structure.php?db=bo...
Apps
Academic
phpMyAdmin
Recent
Favorites
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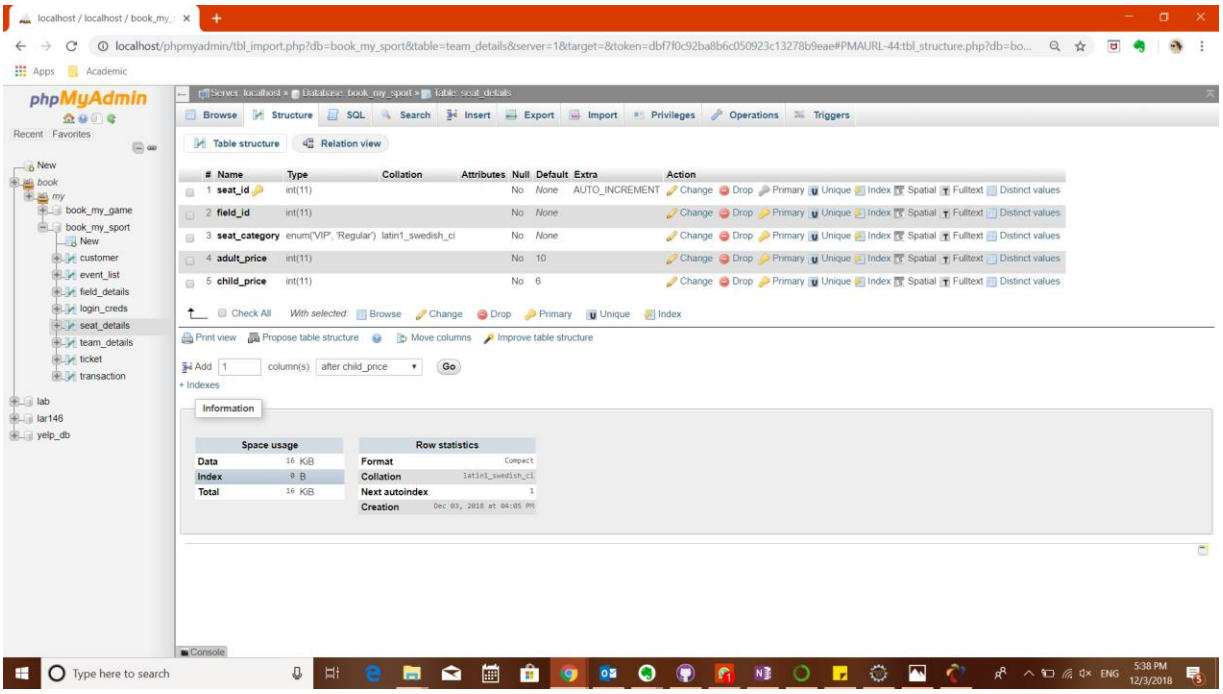
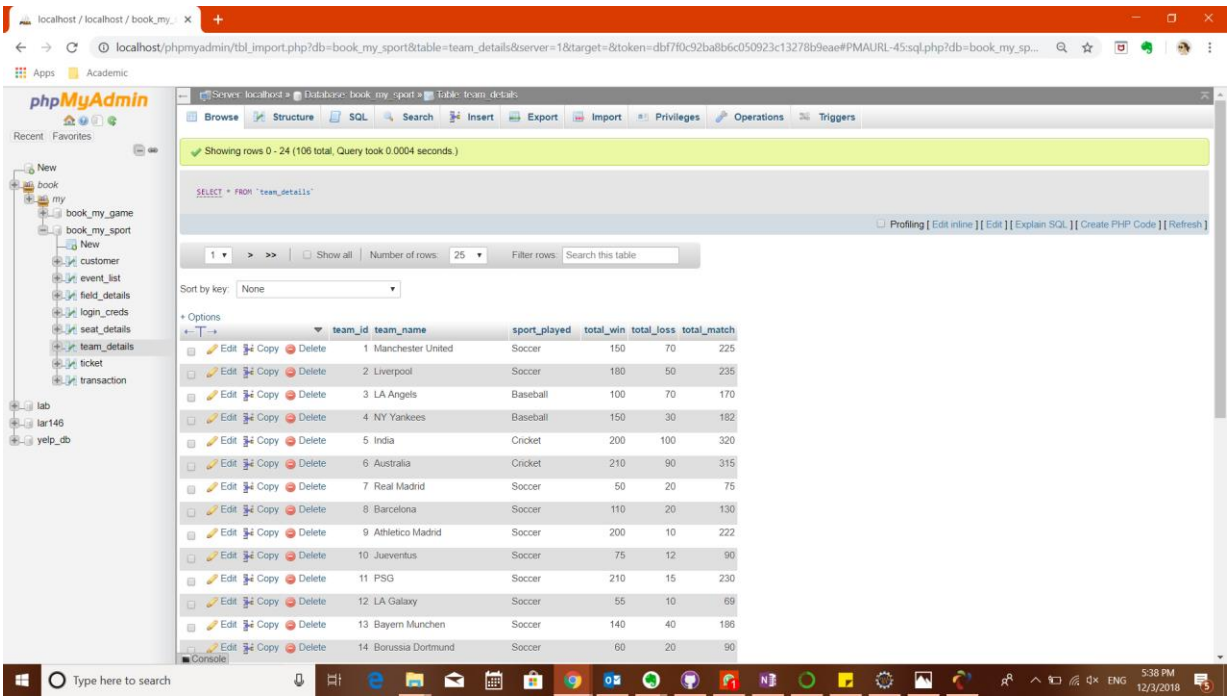
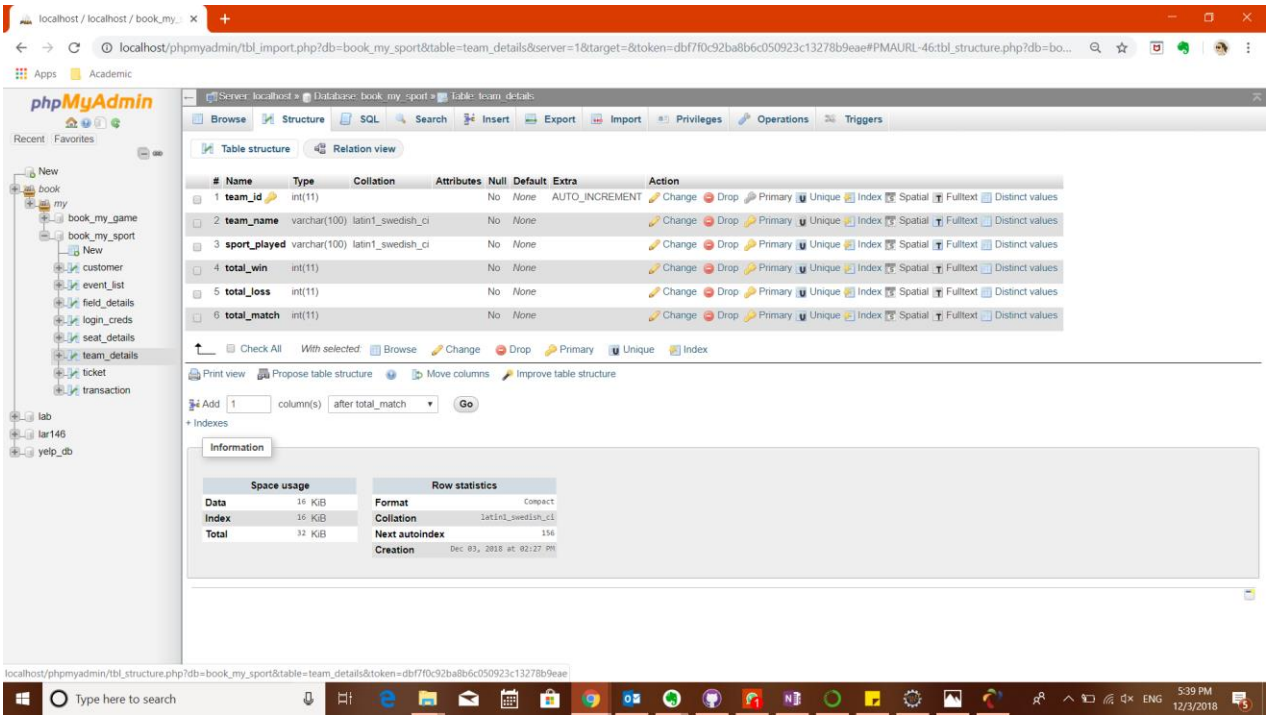
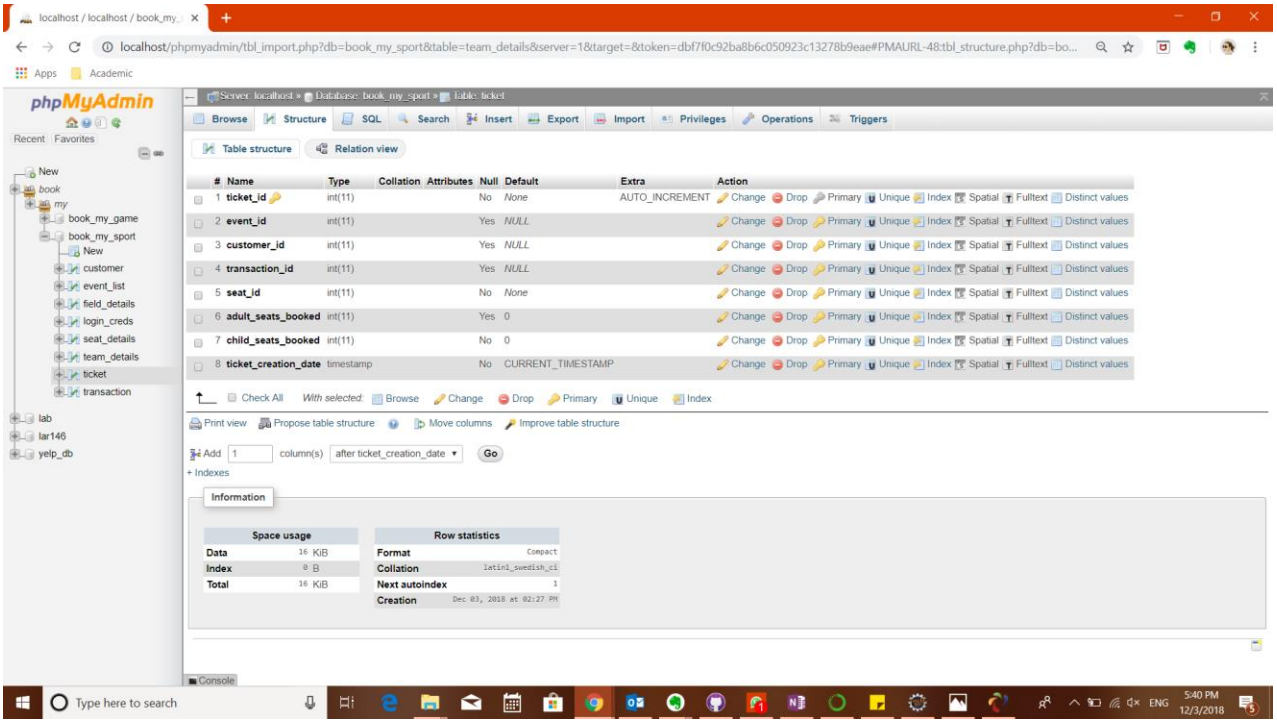
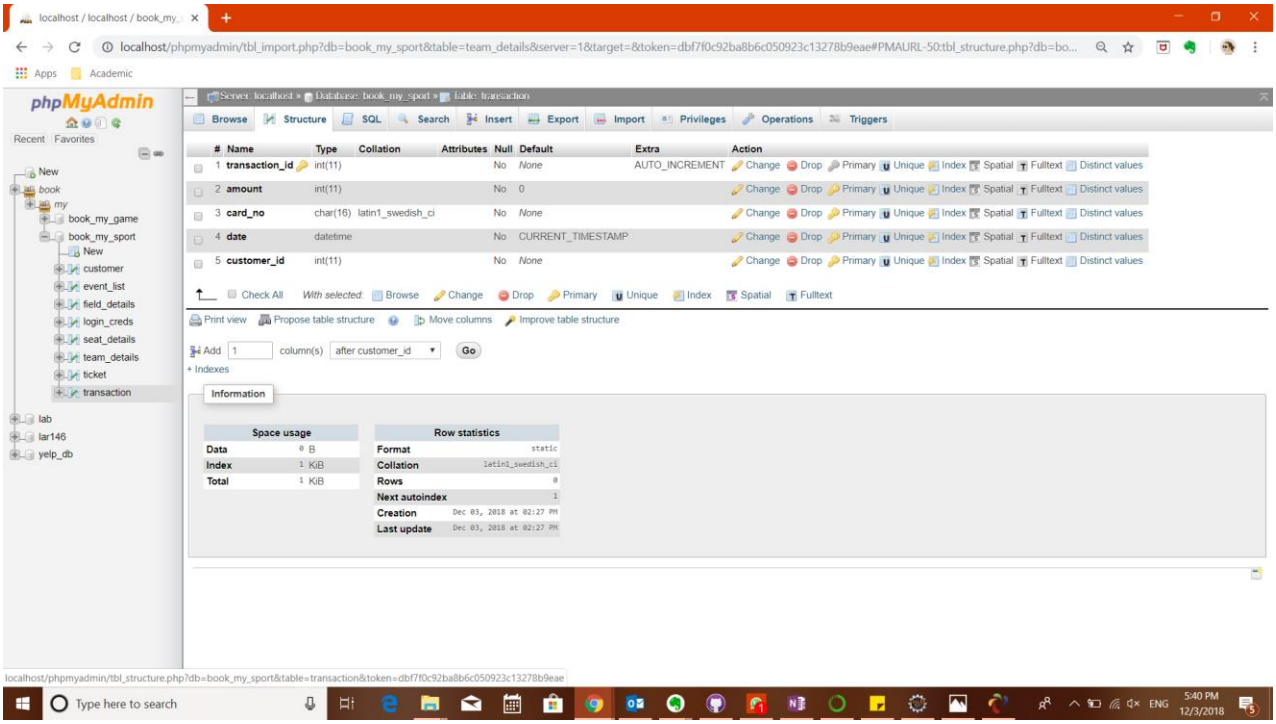
book_my_sport
New
customer
event_list
field_details
login_creds
seat_details
team_details
ticket
transaction
lab
lar146
yelp_db
Server: localhost » Database: book_my_sport » Table: login_creds
Browse
Structure
SQL
Search
Insert
Export
Import
Privileges
Operations
Triggers
Table structure
Relation view
Name Type Collation Attributes Null Default Extra Action
1 customer_id int(11) No None Change Drop Primary Unique Index Spatial Fulltext Distinct values
2 pwd varchar(20) latin1_swedish_ci Yes NULL Change Drop Primary Unique Index Spatial Fulltext Distinct values
Check All
With selected: Browse Change Drop Primary Unique Index
Print view
Propose table structure
Move columns
Improve table structure
Add 1 column(s) after pwd Go
+ Indexes
Information
Space usage
Data 16 KiB
Index 16 KiB
Total 32 KiB
Row statistics
Format Compact
Collation latin1_swedish_ci
Creation Dec 03, 2018 at 02:27 PM
localhost/phpmyadmin/tbl_structure.php?db=book_my_sport&table=login_creds&token=dbf7f0c92ba8b6c050923c13278b9eae
Type here to search
ENG
5:38 PM
12/3/2018


localhost / localhost / book_my_
localhost/phpmyadmin/tbl_import.php?db=book_my_sport&table=team_details&server=1&target=&token=dbf7f0c92ba8b6c050923c13278b9eae#PMAURL-44:tbl_structure.php?db=bo...
Apps
Academic
phpMyAdmin
Recent
Favorites
New
book
my
book_my_game
book_my_sport
New
customer
event_list
field_details
login_creds
seat_details
team_details
ticket
transaction
lab
lar146
yelp_db
Server: localhost » Database: book_my_sport » Table: seat_details
Browse
Structure
SQL
Search
Insert
Export
Import
Privileges
Operations
Triggers
Table structure
Relation view
Name Type Collation Attributes Null Default Extra Action
1 seat_id int(11) No None AUTO_INCREMENT Change Drop Primary Unique Index Spatial Fulltext Distinct values
2 field_id int(11) No None Change Drop Primary Unique Index Spatial Fulltext Distinct values
3 seat_category enum('VIP', 'Regular') latin1_swedish_ci No None Change Drop Primary Unique Index Spatial Fulltext Distinct values
4 adult_price int(11) No 10 Change Drop Primary Unique Index Spatial Fulltext Distinct values
5 child_price int(11) No 6 Change Drop Primary Unique Index Spatial Fulltext Distinct values
Check All
With selected:
Browse
Change
Drop
Primary
Unique
Index
Print view
Propose table structure
Move columns
Improve table structure
Add 1 column(s) after child_price Go
+ Indexes
Information
Space usage
Data 16 KiB
Index 0 B
Total 16 KiB
Row statistics
Format Compact
Collation latin1_swedish_ci
Next autoindex 1
Creation Dec 03, 2018 at 04:05 PM
Console
Type here to search
ENG
5:38 PM
12/3/2018

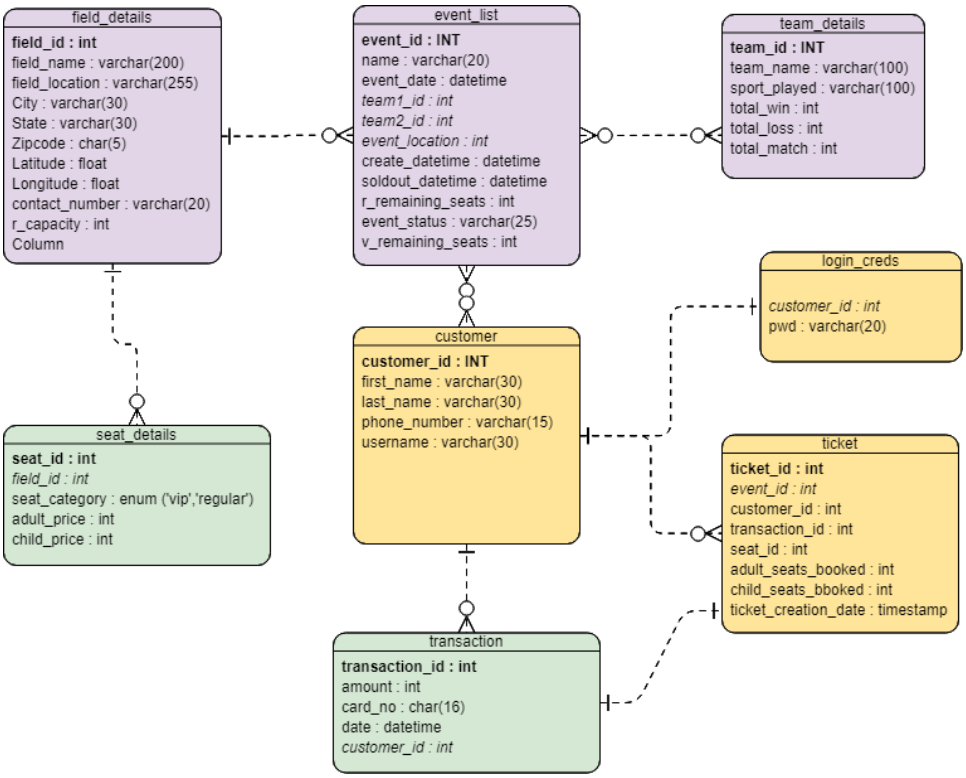

localhost / localhost / book_my_
localhost/phpmyadmin/tbl_import.php?db=book_my_sport&table=team_details&server=1&target=&token=dbf7f0c92ba8b6c050923c13278b9eae#PMAURL-45:sql.php?db=book_my_sp...
Apps
Academic
phpMyAdmin
Recent
Favorites
New
book
my
book_my_game
book_my_sport
New
customer
event_list
field_details
login_creds
seat_details
team_details
ticket
transaction
lab
lar146
yelp_db
Server: localhost » Database: book_my_sport » Table: team_details
Browse
Structure
SQL
Search
Insert
Export
Import
Privileges
Operations
Triggers
Showing rows 0 - 24 (106 total, Query took 0.0004 seconds.)
SELECT * FROM `team_details`
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP Code] [Refresh]
Show all
Number of rows: 25
Filter rows: Search this table
Sort by key: None
+ Options
team_id team_name sport_played total_win total_loss total_match
1 Manchester United Soccer 150 70 225
2 Liverpool Soccer 180 50 235
3 LA Angels Baseball 100 70 170
4 NY Yankees Baseball 150 30 182
5 India Cricket 200 100 320
6 Australia Cricket 210 90 315
7 Real Madrid Soccer 50 20 75
8 Barcelona Soccer 110 20 130
9 Athletico Madrid Soccer 200 10 222
10 Jueventus Soccer 75 12 90
11 PSG Soccer 210 15 230
12 LA Galaxy Soccer 55 10 69
13 Bayern Munchen Soccer 140 40 186
14 Borussia Dortmund Soccer 60 20 90
Edit Copy Delete
Console
Type here to search
ENG
5:38 PM
12/3/2018


phpMyAdmin
Server: localhost » Database: book_my_sport » Table: team_details
Browse Structure SQL Search Insert Export Import Privileges Operations Triggers
Table structure Relation view
Name Type Collation Attributes Null Default Extra Action
1 team_id int(11) No None AUTO_INCREMENT
2 team_name varchar(100) latin1_swedish_ci No None
3 sport_played varchar(100) latin1_swedish_ci No None
4 total_win int(11) No None
5 total_loss int(11) No None
6 total_match int(11) No None
Change Drop Primary Unique Index Spatial Fulltext Distinct values
Check All With selected: Browse Change Drop Primary Unique Index
Print view Propose table structure Move columns Improve table structure
Add 1 column(s) after total_match Go
+ Indexes
Information
Space usage
Data 16 KiB
Index 16 KiB
Total 32 KiB
Row statistics
Format Compact
Collation latin1_swedish_ci
Next autoindex 156
Creation Dec 03, 2018 at 02:27 PM
Recent Favorites
New
book
my
book_my_game
book_my_sport
customer
event_list
field_details
login_creds
seat_details
team_details
ticket
transaction
lab
lar146
yelp_db
Type here to search
ENG
5:39 PM
12/3/2018


phpMyAdmin
Server: localhost » Database: book_my_sport » Table: ticket
Browse Structure SQL Search Insert Export Import Privileges Operations Triggers
Table structure Relation view
Name Type Collation Attributes Null Default Extra Action
1 ticket_id int(11) No None AUTO_INCREMENT
2 event_id int(11) Yes NULL
3 customer_id int(11) Yes NULL
4 transaction_id int(11) Yes NULL
5 seat_id int(11) No None
6 adult_seats_booked int(11) Yes 0
7 child_seats_booked int(11) No 0
8 ticket_creation_date timestamp No CURRENT_TIMESTAMP
Change Drop Primary Unique Index Spatial Fulltext Distinct values
Check All With selected: Browse Change Drop Primary Unique Index
Print view Propose table structure Move columns Improve table structure
Add 1 column(s) after ticket_creation_date Go
+ Indexes
Information
Space usage
Data 16 KiB
Index 0 B
Total 16 KiB
Row statistics
Format Compact
Collation latin1_swedish_ci
Next autoindex 1
Creation Dec 03, 2018 at 02:27 PM
Console
Type here to search
ENG
5:40 PM
12/3/2018



Entity Relation Diagram

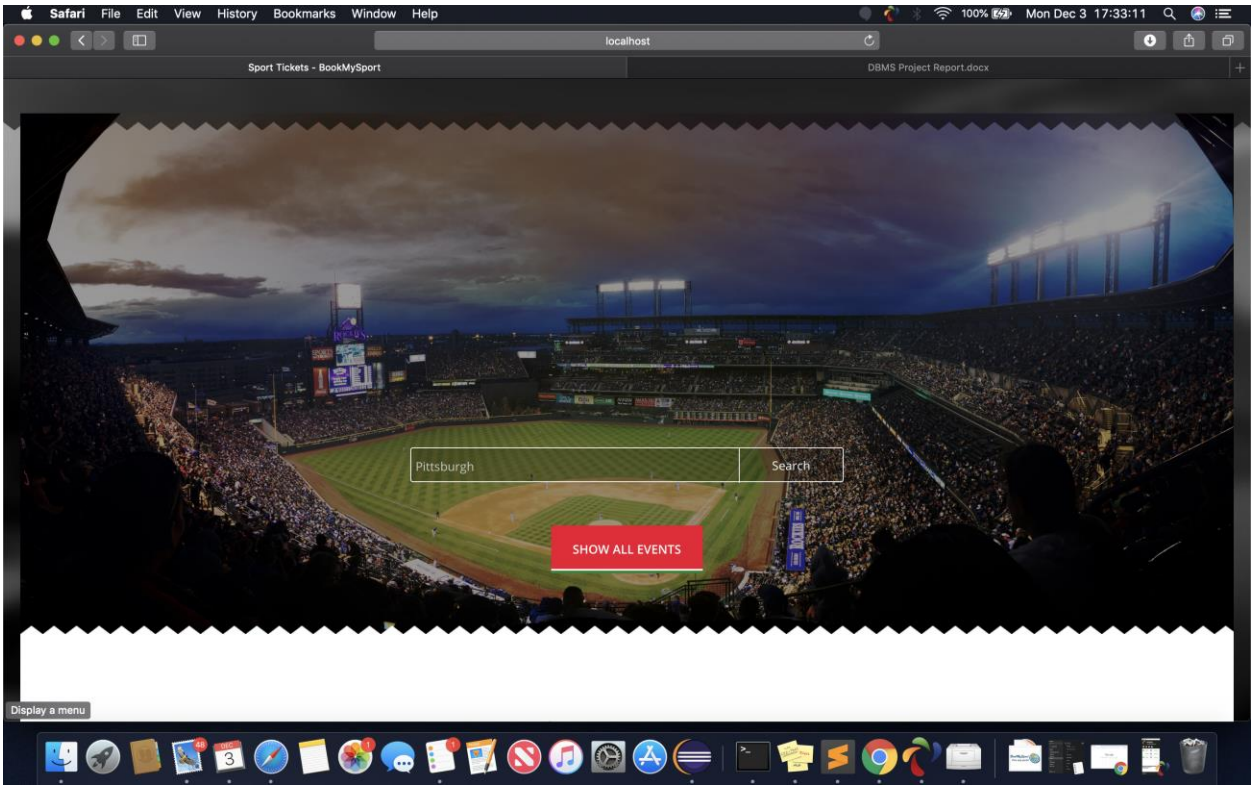


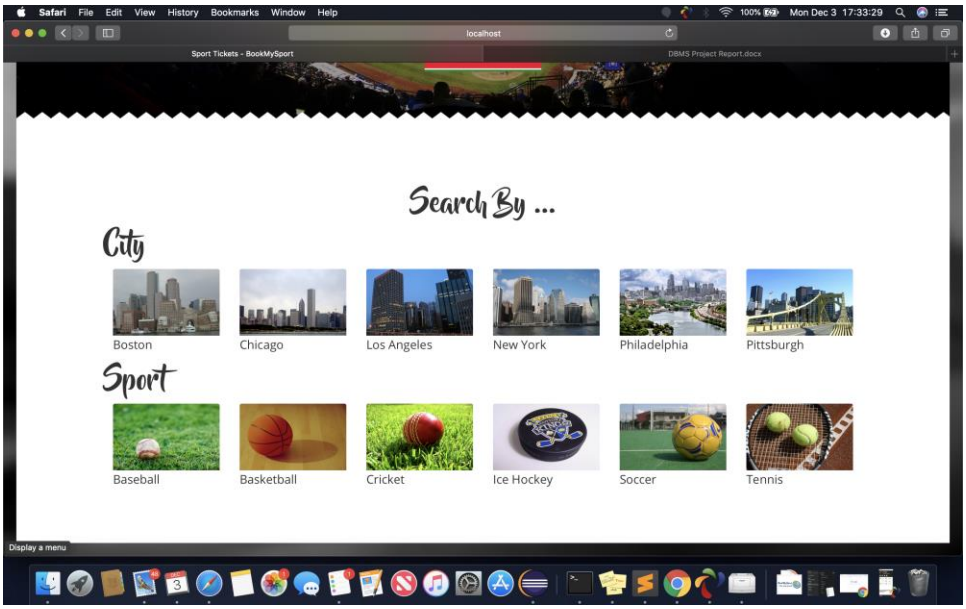
Application screenshots and flow :

Initial page :

This page has a search bar which does a search across all events, stadiums and cities, or the user can choose to display all events.

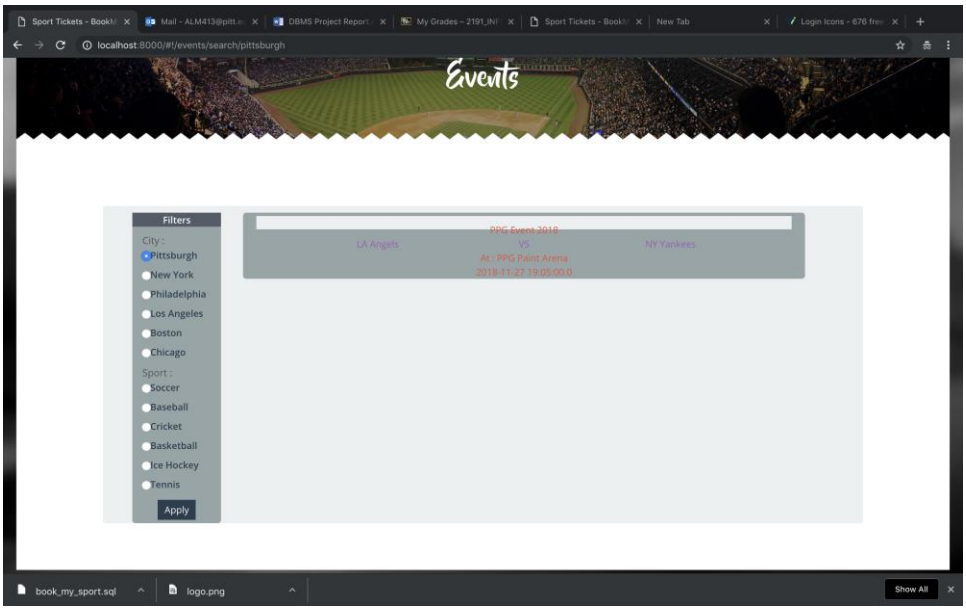
This page also has options to select a city which take the user to the google maps page. The sports options below the city take the user directly to the search result page applying the sport as a filter.





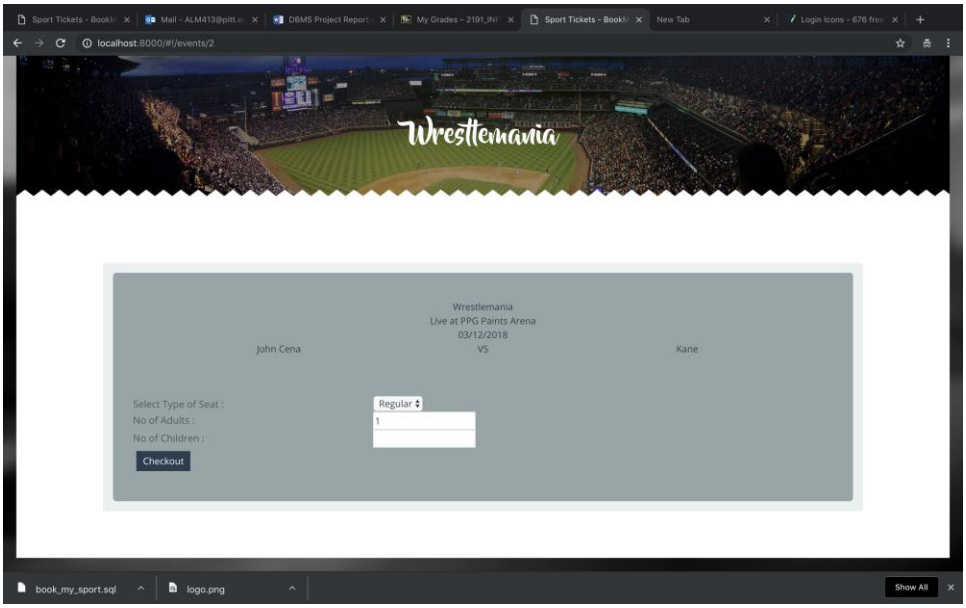
Search Result Page:

This page displays the list of events based on the chosen filters, from the previous page. On this page the user can further apply more filters.



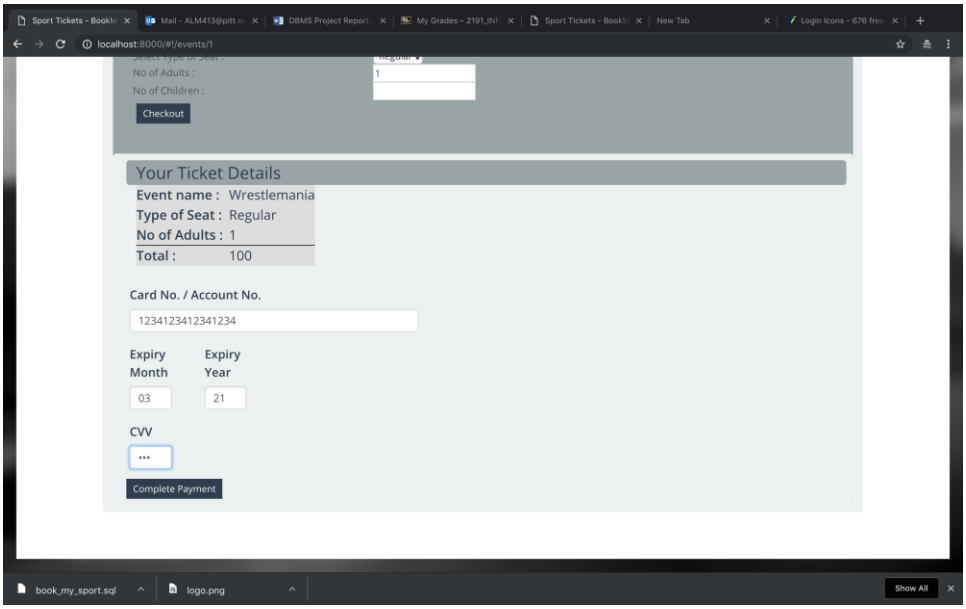
Event Details Page:

On this page the user is shown the details of a selected event and has an option to choose seats both number and type/category. This page also displays the details of the teams who are participating in the event.



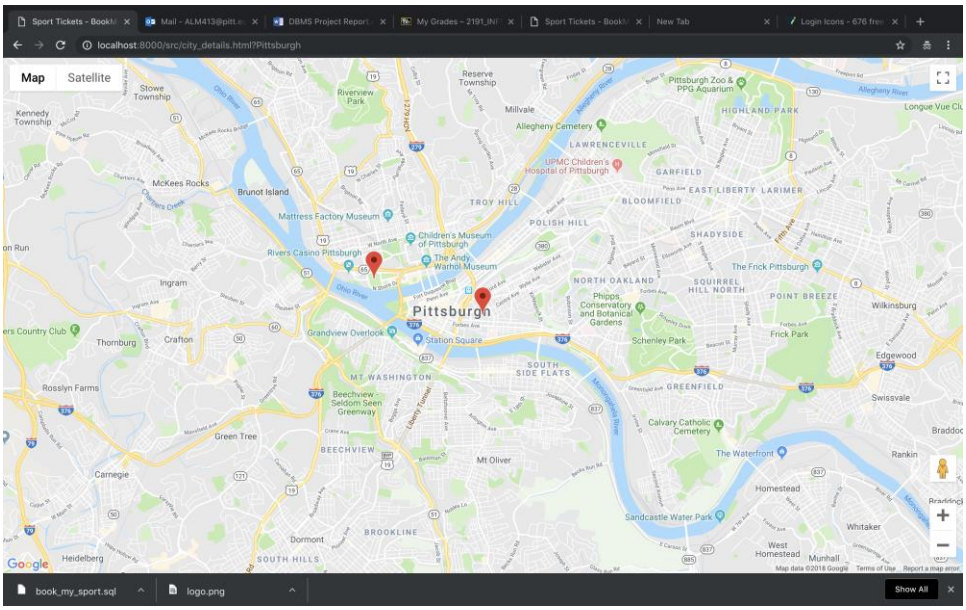
Check out page:

On this page the user is shown the details of his ticket. Then the user can pay using their card details or account details, to confirm the ticket.

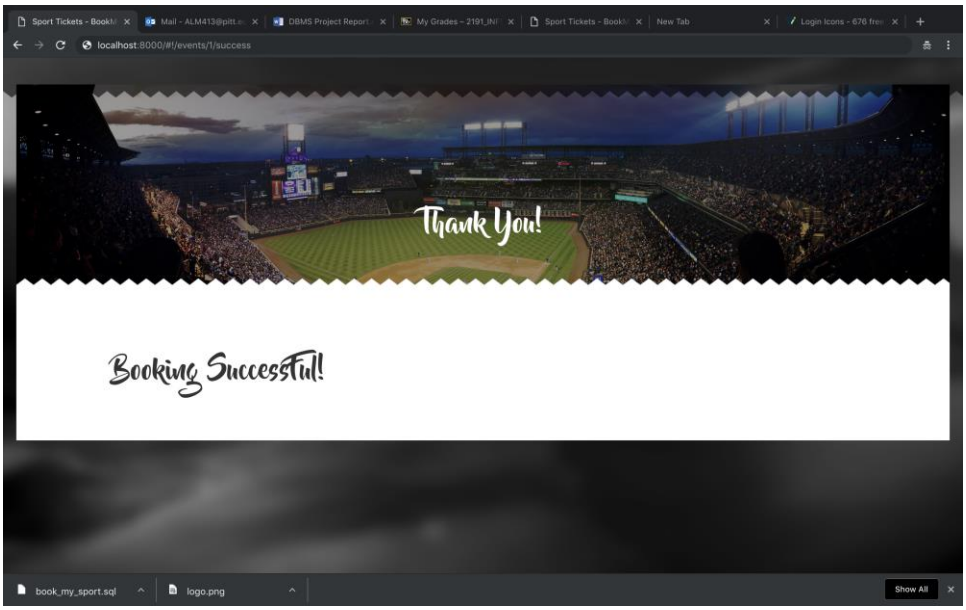


Map view page :

On this page the user is shown stadiums in a selected city and has the option to filter events based on the selected stadium.



Success Page



Future Improvements:

1. Improve security
2. Implement Stored Procedures and function
3. Indexing

4. Normalization
5. Data validation in the backend
6. Give users ability to choose seat numbers