

Appointment Booking System Installation & Usage

By the LCJJ SE:PT Development Team

Table of Contents

Introduction	4
System Prerequisites (DevOps only)	4
Operating System	4
Command Prompt	4
Web Browser	4
PHP 7.0.1 +	4
Important	5
Composer	5
Copy of the Application	5
Installation (DevOps only)	6
Moving Application	6
Installing Composer Dependencies	6
Creating an .env (environment) file	6
Generating a key	6
Migrate the Database	7
Starting a Server	7
Usage	8
Functionality	8
Customer	8
Business Owner (Administrator)	8
Requirements	9
Customer	10
Register	10
Login	11
View Bookings	12
Business Owner (Administrator)	13
Register	13
Login	14

Create Employee	15
Create Business Time	16
Remove Business Time	16
Edit Business Time	16
View Business Information	17
View Summary of Bookings	18
View History of Bookings	18
Create Working Time	19
Remove Working Time	19
Edit Working Time	19
Create Activity	20
Create Booking	20

Introduction

The Appointment Booking System is a Software Engineering: Process & Tools project. The system is developed using PHP as the programming language with [Laravel](#) (a PHP framework).

This document will assume the reader has basic knowledge in operating a computer and basic web usage on the system.

Deploying this software for production use is managed with a dev is acquired through running web hosting software ([Apache](#)) and a relational database management system ([MySQL](#), [PostgreSQL](#)).

For functionality sake, the document will go through the setup to use PHP (running a local server command) and SQLite (local database) to host on URL <http://localhost:8000>.

System Prerequisites (DevOps only)

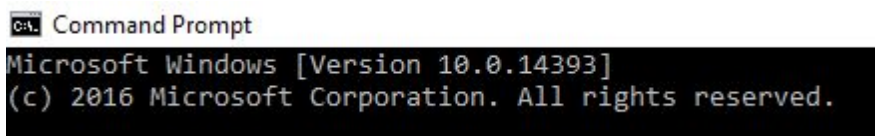
The follow application requires the proper environment to run the software.

Operating System

It is recommended to use **Windows 10 Pro** as it has been tested and developed accordingly. Other operating systems may work, though configuration will be out reach for this documentation.

Command Prompt

To use PHP or run installation commands, a terminal must be used that can run binary programs. Windows comes with command prompt by default and terminal for Mac OS.



Web Browser

Almost any latest common web browser can be used to visit the application webpages. Though the [Google Chrome browser](#) is recommended since it has been tested and developed with no functionality issues.

PHP 7.0.1 +

System requires a [PHP binary package](#) with version 7.0.1 or later. Go through the [installation](#) provided by php.net.

To verify if PHP is running on your system, run the following command **'php -v'** on a --command prompt.

```
C:\Users\jjohh>php -v
PHP 7.1.2 (cli) (built: Feb 14 2017 21:24:49) ( ZTS MSVC14 (Visual C++ 2015) x64 )
Copyright (c) 1997-2017 The PHP Group
Zend Engine v3.1.0, Copyright (c) 1998-2017 Zend Technologies
```

Important

Once PHP is installed on the computer, the following PHP extensions must be enabled to allow the application to run properly.

- OpenSSL
- PDO
- Mbstring
- Tokenizer
- Sqlite3
- XML
- Fileinfo

Instructions to enable extensions for Windows is [here](#). Otherwise, a simple Google search on how to enable PHP extensions on other operating systems is relevant.

Composer

Laravel relies on a PHP dependency manager to install third-party software such as Bootstrap (a CSS framework).

To verify that Composer is installed, run the following command '**composer -V**'.

```
C:\Users\jjohh>composer -V
Composer version 1.4.0 2017-03-08 17:51:24
```

Copy of the Application

Make sure all files exist as shown on the image.

app	8/04/2017 12:54 AM	File folder	
bootstrap	15/03/2017 6:28 PM	File folder	
config	21/03/2017 1:22 AM	File folder	
database	8/04/2017 12:51 AM	File folder	
node_modules	17/03/2017 2:27 AM	File folder	
public	17/03/2017 2:27 AM	File folder	
resources	15/03/2017 6:28 PM	File folder	
routes	4/04/2017 9:20 PM	File folder	
storage	15/03/2017 6:28 PM	File folder	
tests	30/03/2017 4:41 PM	File folder	
vendor	8/04/2017 3:07 AM	File folder	
.env.example	23/03/2017 12:44 ...	EXAMPLE File	1 KB
.gitattributes	15/03/2017 6:28 PM	Text Document	1 KB
.gitignore	30/03/2017 2:04 PM	GITIGNORE File	1 KB
artisan	15/03/2017 6:28 PM	File	2 KB
composer.json	22/03/2017 9:33 PM	JSON File	2 KB
composer.lock	27/03/2017 12:42 ...	LOCK File	123 KB
debug.log	5/04/2017 5:13 PM	Text Document	2 KB
package.json	17/03/2017 2:26 AM	JSON File	2 KB
phpunit.dusk.xml	25/03/2017 2:59 PM	XML Document	1 KB
phpunit.xml	30/03/2017 8:51 PM	XML Document	2 KB
README.md	8/04/2017 12:54 AM	MD File	5 KB
server.php	15/03/2017 6:28 PM	PHP File	1 KB
unit.bat	21/03/2017 4:14 PM	Windows Batch File	1 KB
webpack.mix.js	15/03/2017 6:28 PM	JS File	1 KB
yarn.lock	15/03/2017 6:28 PM	LOCK File	164 KB

Installation (DevOps only)

Moving Application

Simply place the application files in an accessible place on the local computer with proper read, write and execute permissions.

Installing Composer Dependencies

Open a command prompt and change directory to the application folder.

Run the following command '**composer install**' to install required dependencies.

```
C:\Users\jjohh>composer install
```

Creating an .env (environment) file

Laravel has predefined configurations that can be modified to suit different working environments. Whether that is a development, testing or production environment with the framework.

The required configuration needed is a production environment. To do so, there is a '**.env.example**' file located at the root of the application folder.

Rename the file from '**.env.example**' to '**.env**'. This let Laravel know that there is a user defined configuration for the environment.

```
1 APP_ENV=production
2 APP_KEY=
3 APP_DEBUG=true
4 APP_LOG_LEVEL=debug
5 APP_URL=http://localhost:8000
6
7 DB_CONNECTION=sqlite
8 DB_HOST=127.0.0.1
9 DB_PORT=3306
10 DB_USERNAME=root
11 DB_PASSWORD=
12
13 BROADCAST_DRIVER=log
14 CACHE_DRIVER=file
15 SESSION_DRIVER=file
16 QUEUE_DRIVER=sync
17
18 REDIS_HOST=127.0.0.1
19 REDIS_PASSWORD=null
20 REDIS_PORT=6379
21
22 MAIL_DRIVER=smtp
23 MAIL_HOST=mailtrap.io
24 MAIL_PORT=2525
25 MAIL_USERNAME=null
26 MAIL_PASSWORD=null
27 MAIL_ENCRYPTION=null
28
29 PUSHER_APP_ID=
30 PUSHER_APP_KEY=
31 PUSHER_APP_SECRET=
```

Generating a key

The Laravel PHP framework needs a key to be generated before usage. Run the following command '**php artisan key:generate**' at the root of the application.

```
C:\Users\Johnny>php artisan key:generate
```

Migrate the Database

Run the following command '***php artisan migrate:refresh***' to migrate database schemas (create tables in the database). Using the '***--seed***' flag is also useful to add predefined items to the database.

```
C:\Users\jjohh\projects\git\SE-PT-Assignment>php artisan migrate
Migration table created successfully.
Migrating: 2017_03_19_081558_create_business_owners_table
Migrated: 2017_03_19_081558_create_business_owners_table
Migrating: 2017_03_19_081613_create_bookings_table
Migrated: 2017_03_19_081613_create_bookings_table
Migrating: 2017_03_19_081620_create_customers_table
Migrated: 2017_03_19_081620_create_customers_table
Migrating: 2017_03_19_083138_create_employees_table
Migrated: 2017_03_19_083138_create_employees_table
Migrating: 2017_03_19_084917_create_availabilities_table
Migrated: 2017_03_19_084917_create_availabilities_table
Migrating: 2017_04_05_114720_create_working_times_table
Migrated: 2017_04_05_114720_create_working_times_table
```

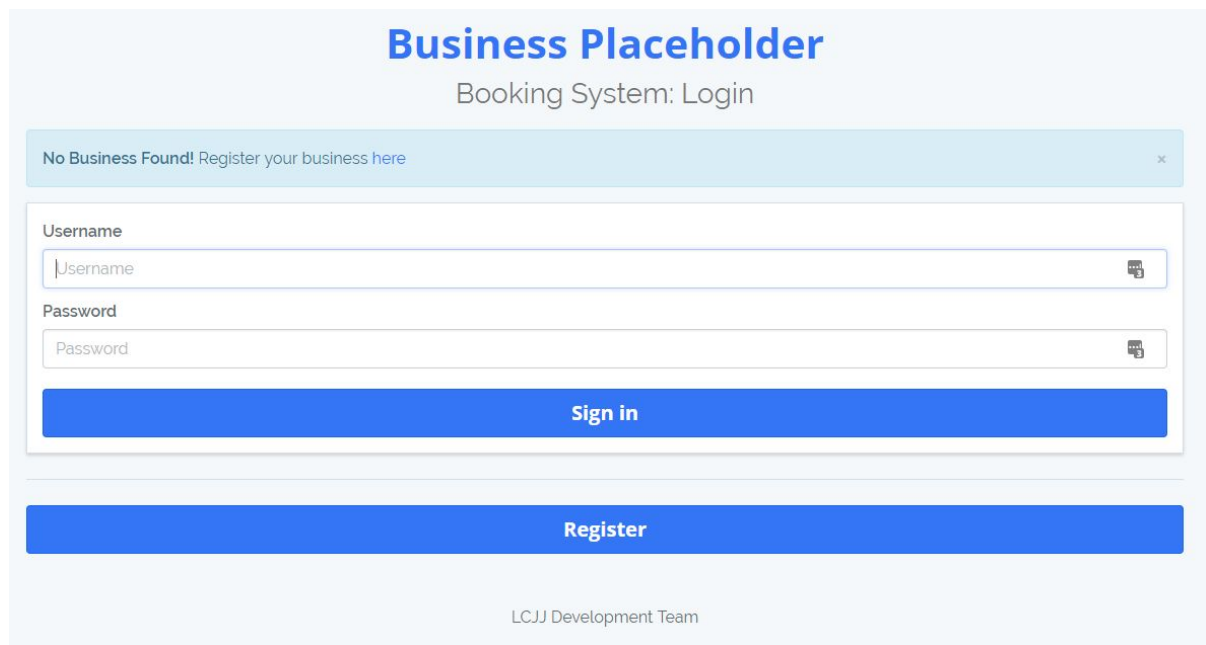
Ignore the timestamp prefix on the files, they do not have to be exactly the same as output shown above.

Starting a Server

Run the following command '***php artisan serve***' to start a local host server through command prompt.

```
C:\Users\jjohh\projects\git\SE-PT-Assignment>php artisan serve
Laravel development server started: <http://127.0.0.1:8000>
```

The application is now ready to be used through <http://127.0.0.1:8000> or <http://localhost:8000>.



The image shows a web application interface for a 'Business Placeholder' booking system. At the top, the title 'Business Placeholder' is in blue, with the subtitle 'Booking System: Login' below it. A light blue banner at the top contains the text 'No Business Found! Register your business [here](#)' and a close button. Below this is a login form with two input fields: 'Username' and 'Password', each with a placeholder text and a small icon on the right. A blue 'Sign in' button is positioned below the password field. Below the login form is a large blue 'Register' button. At the bottom of the page, the text 'LCJJ Development Team' is displayed.

Usage

This section will go through all functionality of the Appointment Booking System application.

The following instructions will assume that the application URL is <http://localhost:8000> and when told to visit a certain page given its route (e.g. /login) represents the URL <http://localhost:8000/login>.

Functionality

The application can do the following actions organised by the role of the user of either customer or business owner.

Customer

User is to not do any administrator actions and only be able to do the following:

- Login / Register as customer
- Add Booking without employee
- View Customer Bookings
- Logout

Business Owner (Administrator)

User is able to do all actions provided by the application (super user). This includes customer actions.

- Login / Register as business owner (includes registering the business)
- Add Employee
- Add Working Time
- Edit Working Time
- Add Booking
- Add Activity

- Assign Employee to Booking
- View Business Information
- View Employee Availability
- View a Summary of Bookings
- View a History of Bookings
- Logout

Requirements

The only software needed to use the application is a [web browser](#) as started in the software prerequisites.

Customer

Register

Visit the /register page and fill customer details in the input form.

Business Placeholder

Booking System: Customer Registration

First Name

First Name

Last Name

Last Name

Username (alpha-numeric characters only)

Username

Password (at least 6 characters)

Password

Password Confirmation

Password

Phone (at least 10 characters)

Phone

Address (at least 6 characters)

Address

Register

LCJJ Development Team

Click the 'Register' button to submit the customer registration form. Once the form has been successfully submitted and validated, a redirection to /login and a message shown stating a successful customer registration.

Business Placeholder

Booking System: Login

Thank you for registering! You can now Login!

No Business Found! Register your business here

Username

Username

Password

Password

Sign in

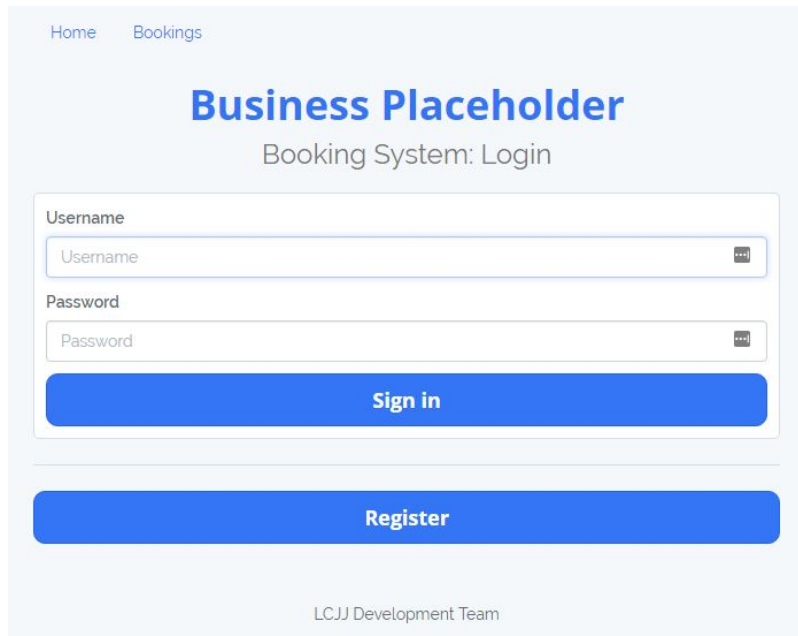
Register

LCJJ Development Team

Login

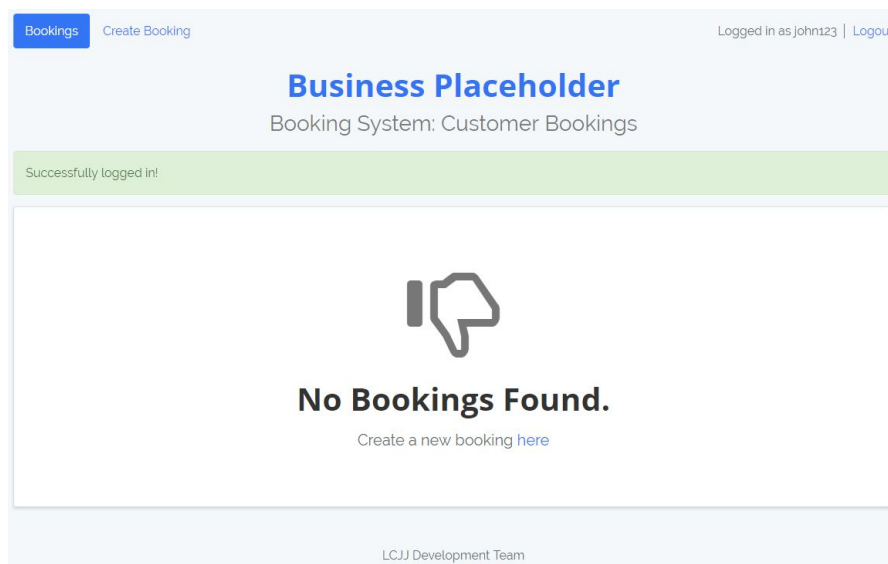
Visit the /login page or root of the application (<http://localhost:8000/> will redirect to /login). There will be an input form displayed with fields username and password.

It is important that a customer username and password must exist before logging in. Follow the customer registration section to create a new customer.



The screenshot shows the 'Business Placeholder' login page. At the top, there are links for 'Home' and 'Bookings'. The main heading is 'Business Placeholder' with the subtitle 'Booking System: Login'. Below this is a login form with two input fields: 'Username' and 'Password', each with a placeholder text and a toggle icon. A blue 'Sign in' button is positioned below the password field. Below the form is a blue 'Register' button. At the bottom, it says 'LCJJ Development Team'.

Once the login form is filled, click the 'Sign in' button and the page will redirect to /bookings if the login was successful.



The screenshot shows the 'Business Placeholder' customer bookings page. At the top, there are links for 'Bookings' and 'Create Booking'. On the right, it says 'Logged in as john123 | Logout'. The main heading is 'Business Placeholder' with the subtitle 'Booking System: Customer Bookings'. A green banner at the top says 'Successfully logged in!'. Below this is a large white box with a hand icon pointing to the text 'No Bookings Found.' and a link 'Create a new booking here'. At the bottom, it says 'LCJJ Development Team'.

View Bookings

Visit /bookings to view all customer bookings.

Home

Bookings

Logged in as john123 | Logout

Business Placeholder

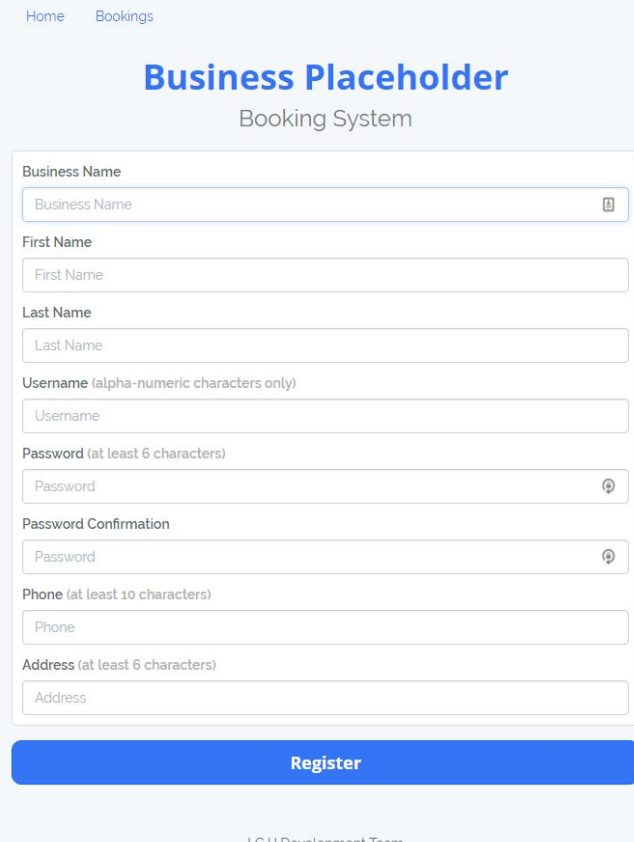
Booking System: Customer Bookings

ID	Start Time	End Time	Date	Duration
259	04:00 AM	07:30 PM	11/04/17	15:30
568	04:30 AM	06:30 PM	12/10/16	14:00
86	02:00 AM	08:00 PM	11/04/17	18:00
48	06:00 PM	10:30 PM	04/03/18	4:30
474	02:00 AM	03:00 AM	12/12/16	1:00
422	02:00 AM	04:00 AM	31/07/16	2:00
353	06:00 AM	08:00 PM	04/07/16	14:00
181	11:00 AM	09:30 PM	14/10/17	10:30
677	04:00 AM	10:30 AM	12/04/17	6:30
912	04:00 PM	06:00 PM	09/01/17	2:00
10	01:00 PM	12:00 AM	11/01/18	13:00
318	12:00 AM	01:00 AM	20/06/17	1:00
654	01:30 PM	02:30 PM	22/09/17	1:00
136	06:00 AM	08:30 AM	17/08/16	2:30
803	08:30 PM	11:30 PM	20/01/17	3:00

Business Owner (Administrator)

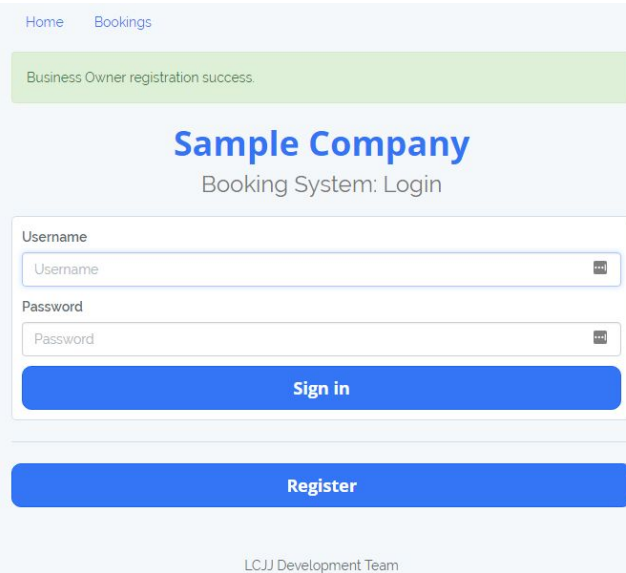
Register

Visit the /admin/register page and fill business owner details in the input form.



The registration form is titled "Business Placeholder" with the subtitle "Booking System". It contains several input fields: "Business Name", "First Name", "Last Name", "Username (alpha-numeric characters only)", "Password (at least 6 characters)", "Password Confirmation", "Phone (at least 10 characters)", and "Address (at least 6 characters)". Each field has a placeholder text and a small icon on the right. Below the fields is a large blue "Register" button. The footer of the form area says "LCJJ Development Team".

Click the 'Register' button to submit the business owner registration form. Once the form has been successfully submitted and validated, a redirection to /login and a message shown stating a successful business owner registration including the business itself.

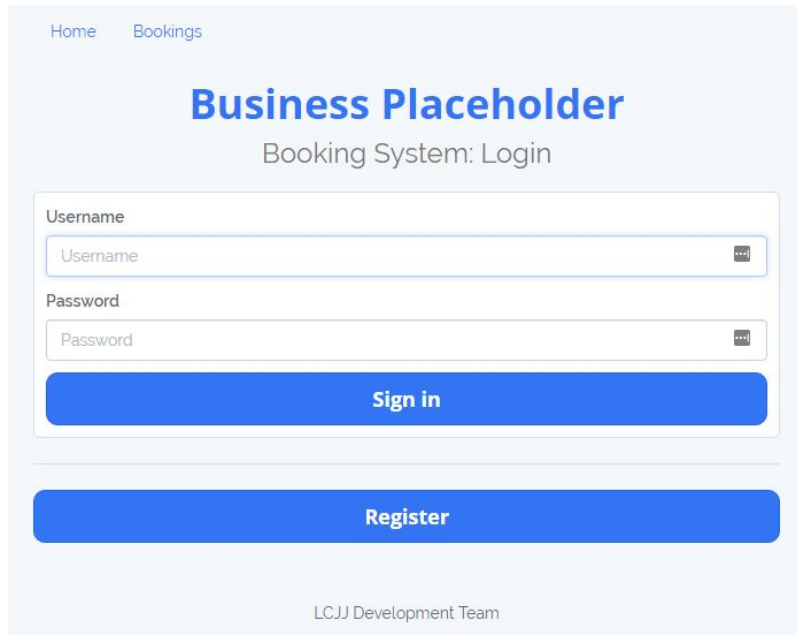


The login form is titled "Sample Company" with the subtitle "Booking System: Login". It contains two input fields: "Username" and "Password". Each field has a placeholder text and a small icon on the right. Below the fields is a large blue "Sign in" button. Below the "Sign in" button is a large blue "Register" button. Above the "Sign in" button is a green message box that says "Business Owner registration success.". The footer of the form area says "LCJJ Development Team".

Login

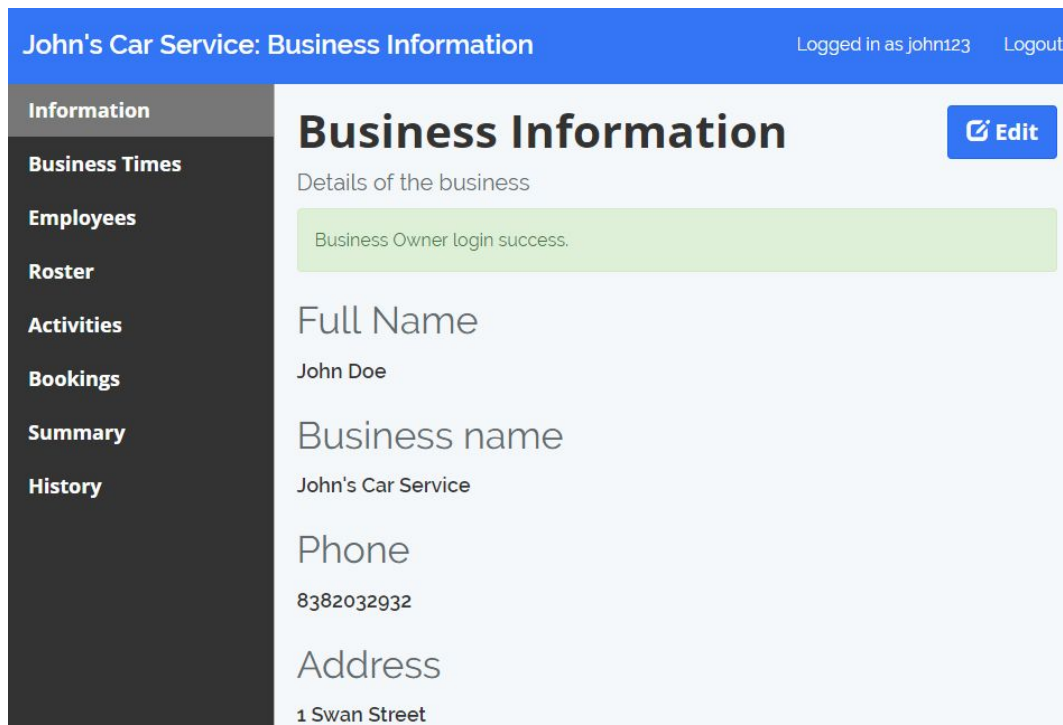
Visit the /login page or root of the application (<http://localhost:8000/> will redirect to /login). There will be an input form displayed with fields username and password.

It is important that a business owner username and password must exist before logging in. Follow the business owner registration section to create a new business owner.



The screenshot shows a web application interface for a business placeholder. At the top, there are navigation links for 'Home' and 'Bookings'. The main heading is 'Business Placeholder' in blue, followed by the subtitle 'Booking System: Login'. Below this is a login form with two input fields: 'Username' and 'Password'. Each field has a placeholder text and a small icon on the right. Below the input fields is a blue 'Sign in' button. Below the 'Sign in' button is a blue 'Register' button. At the bottom of the page, it says 'LCJJ Development Team'.

Once the login form is filled, click the 'Sign in' button and the page will redirect to /admin if the login was successful.



The screenshot shows the 'Business Information' page after a successful login. The page has a blue header with the text 'John's Car Service: Business Information' and 'Logged in as john123 Logout'. On the left, there is a dark sidebar with a list of navigation items: 'Information', 'Business Times', 'Employees', 'Roster', 'Activities', 'Bookings', 'Summary', and 'History'. The main content area has a heading 'Business Information' with an 'Edit' button. Below the heading is the text 'Details of the business'. A green message box says 'Business Owner login success.'. Below this are four sections: 'Full Name' with the value 'John Doe', 'Business name' with the value 'John's Car Service', 'Phone' with the value '8382032932', and 'Address' with the value '1 Swan Street'.

Create Employee

Visit the /admin/employees page to add employees. Business owner must be registered and logged in to do the following actions.

Fill out the form provided on the page and click the 'Create Employee' button to submit the form.

The screenshot shows a web application interface for 'John's Car Service: Employees'. At the top, a blue header bar contains the page title 'John's Car Service: Employees' on the left and 'Logged in as john123' with a 'Logout' link on the right. A dark grey sidebar on the left lists navigation options: 'Information', 'Business Times', 'Employees' (highlighted), 'Roster', 'Activities', 'Bookings', 'Summary', and 'History'. The main content area is titled 'Create Employee' and includes the instruction 'Add a new employee to the system'. Below this, there is a 'Job Title (e.g. Crew Member, Manager)' label followed by a text input field with the placeholder 'Title'. This is followed by 'First Name' and 'Last Name' labels, each with a corresponding text input field containing the placeholder 'First Name' and 'Last Name' respectively. Below these is a 'Phone (at least 10 characters)' label with a text input field containing the placeholder 'Phone'. At the bottom of the form is a large blue button labeled 'Create Employee'.

Once the form has been submitted and the input is valid, a new employee is created.

Create Business Time

Visit the /admin/times page to create business times. Business owner must be registered and logged in to do the following actions.

Fill out the form provided on the page and click the 'Create Business Time' button to submit the form.

John's Car Service: Business Times
Logged in as john123
Logout

Information
Business Times
Employees
Roster
Activities
Bookings
Summary
History

Business Times

Add a new business time for the week. There must be only one time per day.

Day (select a day within the week)

Monday

Start Time (24 hour format e.g. 17:00 - 05:00 PM)
End Time (24 hour format)

09:00
17:00

Create Business Time

Remove Business Time

Remove business time by clicking on the 'x' button of a business time.

Open Business Times

A table of all activities within the business.

Warning! Editing/deleting a business time will remove future working times and bookings of that day.

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
08:00 - 17:00 x	08:00 - 17:00 x	08:00 - 17:00 x	N/A	N/A	12:00 - 17:00 x	N/A

Edit Business Time

Click on the edit symbol of a business time to make changes to the business time.

Open Business Times

A table of all activities within the business.

Warning! Editing/deleting a business time will remove future working times and bookings of that day.

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
08:00 - 17:00 x	08:00 - 17:00 x	08:00 - 17:00 x	N/A	N/A	12:00 - 17:00 x	N/A

Edit Business Time

Edit an existing business time below.

Day
MONDAY

Start Time (24 hour format e.g. 17:00 - 05:00 PM)

09:00 AM
End Time
05:00 PM

Edit Business Time

View Business Information

Visit the /admin page to view business information. Business owner must be registered and logged in.

Sample Company: Business Information

Logged in as john1233 Logout

Information

Summary

History

Roster

Employees

Business Information

Details of the business

Full Name

John Doe

Business name

Sample Company

Phone

04310902392

Address

1 Swan Hill

View Summary of Bookings

Visit the /admin/summary page to view employee availability. Business owner must be registered and logged in. This action is similar to viewing employee availability since both functions are on the same page.

John's Car Service: Summary of BookingsLogged in as john123 [Logout](#)

Information
Business Times
Employees
Roster
Activities
Bookings
Summary
History

Summary of Bookings

Present latest bookings for the next 7 days.

ID	Customer	Employee	Activity	Start	End	Duration	Date
1	Jon Wiza	Orville Sauer	Oil Service	11:00	11:30	00:30	28/05/17
2	Rupert Beatty	Bernadine Bartell	Oil Service	11:30	12:00	00:30	29/05/17
6	Joaquin Bernhard	Pattie Watsica	Smash Repair	12:30	18:30	06:00	31/05/17

View History of Bookings

Visit the /admin/history page to view employee availability. Business owner must be registered and logged in.

John's Car Service: HistoryLogged in as john123 [Logout](#)

Information
Business Times
Employees
Roster
Activities
Bookings
Summary
History

History of Bookings

Present older bookings.

ID	Customer	Employee	Activity	Start	End	Duration	Date
3	Rupert Beatty	Pattie Watsica	Oil Service	10:30	11:00	00:30	25/05/17
4	Joaquin Bernhard	Bernadine Bartell	Smash Repair	12:30	18:30	06:00	25/05/17
5	Joaquin Bernhard	Orville Sauer	Smash Repair	09:30	15:30	06:00	01/05/17

Create Working Time

Visit the /admin/roster page to add working time. Business owner must be registered and logged in to do the following actions. An employee must exist to create a working time.

Fill out the form provided on the page and click the 'Add Working Time' button to submit the form.

The screenshot shows the 'Create Working Time' form. On the left is a sidebar with navigation links: Information, Business Times, Employees, Roster (selected), Activities, Bookings, Summary, and History. The main content area has a title 'Create Working Time' and a subtitle 'Add Business Hours for the month.' Below this is a dropdown for 'Employee (Title - Full Name - ID)' with the value '-- None --'. There are two input fields for 'Start Time (24 hour format)' (09:00) and 'End Time (24 hour format)' (17:00). Below these are two dropdowns for 'Month & Year (select to go to month)' (May 2017) and 'Day (day of month)' (1). At the bottom is a blue button labeled 'Add Working Time'.

Once the form has been submitted and the input is valid, a new working time is created.

Remove Working Time

Click on the remove icon within the calendar to remove a working time.

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
B. Bartell 01 09:00 - 17:00	B. Bartell 02 09:00 - 17:00	B. Bartell 03 09:00 - 17:00	B. Bartell 04 09:00 - 17:00	B. Bartell 05 09:00 - 17:00	06	07
E. Dach 10:00 - 17:00	E. Dach 10:00 - 17:00	E. Dach 10:00 - 17:00	E. Dach 10:00 - 17:00	E. Dach 10:00 - 17:00		
O. Sauer 13:00 - 17:00	O. Sauer 13:00 - 17:00	O. Sauer 13:00 - 17:00	O. Sauer 13:00 - 17:00	O. Sauer 13:00 - 17:00		

Edit Working Time

Visit the /admin/roster/{id}/edit page to edit an employee working time. The {id} in the URL selects the working time ID from the database.

The screenshot shows the 'Edit Working Time' form. It has a title 'Edit Working Time' and a subtitle 'Add Business Hours for the next month.' Below the subtitle is a yellow warning box that says: 'Warning! Once you have edited the working time of an employee, all working time bookings will be unassigned.' Below the warning is a dropdown for 'Employee (ID - Title - Full Name)' with the value '1 - Cleaner - John Doe'. There are two input fields for 'Start Time (24 hour format)' (09:00) and 'End Time (24 hour format)' (17:00). Below these is a date input field for 'Date (dd/mm/yyyy)' with the value '01/05/2017'. At the bottom is a blue button labeled 'Add Working Time'.

Notice the warning show on the image above. Once the working time has been changed, all assigned bookings are unassigned. This will safely make all employees working on proper times.

Create Activity

Visit the /admin/activity page to create an activity.

John's Car Service: Activities

Logged in as John123 Logout

Information

Business Times

Employees

Roster

Activities

Bookings

Summary

History

Create Activity

Add a new employee to the system.

Name (e.g. Haircut, Coloring)

Description (optional)

Description

Duration (24 hour format)

hh:mm

Create Activity

Activities

A table of all activities within the business.

ID	Name	Description	Duration
2	Smash Repair	Doloribus incididunt iure aut et dicta voluptas officis.	06:00
1	Oil Service	In corrupti quas rem et fuga est quae.	00:30
4	Car Radio Installation	Minus molestiae enim enim facere eos dolore.	03:00
3	Full Service	Ut corporis minus repellendus provident eaque occaecati facilis.	08:00

Create Booking

Fill the following form below to create a booking.

John's Car Service

Logged in as John123 Logout

Information

Business Times

Employees

Roster

Activities

Bookings

Summary

History

Create Booking

Add a new booking to the system

Employee (Title - Full Name - ID)

-- None --

Month & Year (Select to go to month)

May 2017

Day

1

Customer (Full Name - ID)

Breanna - Fisher - 3

Activity (Name - Duration)

Car Radio Installation - 03:00

Start Time (24 hour format)

09:00

Create Booking

Use the employee availability as a reference to create a booking.

Availability

Bookings

Employee Availability

Show the roster of a given month.

Month & Year (Select to go to month)

May 2017

May 2017

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
O. Sauer 13:00 - 09:30	O. Sauer 13:00 - 17:00	O. Sauer 13:00 - 17:00	O. Sauer 13:00 - 17:00	O. Sauer 13:00 - 17:00		
O. Sauer 15:30 - 17:00	B. Bartell 09:00 - 17:00	B. Bartell 09:00 - 17:00	B. Bartell 09:00 - 17:00	B. Bartell 09:00 - 17:00		
B. Bartell 09:00 - 17:00	E. Dach 10:00 - 17:00	E. Dach 10:00 - 17:00	E. Dach 10:00 - 17:00	E. Dach 10:00 - 17:00		
E. Dach 10:00 - 17:00						