

Appointment Booking System Installation & Usage

By the LCJJ SE:PT Development Team

Table of Contents

Introduction	3
System Prerequisites	3
Operating System	3
Command Prompt	3
Web Browser.....	3
PHP 7.0.1 +	3
Important	4
Composer	4
Copy of the Application.....	4
Installation	5
Moving Application	5
Installing Composer Dependencies	5
Creating an .env (environment) file	5
Migrate the Database.....	6
Starting a Server	6
Usage.....	7
Functionality	7
Customer	7
Business Owner (Administrator).....	7
Requirements.....	7
Customer	8
Register.....	8
Login.....	9
View Bookings.....	10
Business Owner (Administrator).....	11
Register.....	11
Login.....	12
Add Employee.....	13
Add Working Time	14
View Business Information	15
View Employee Availability	15
View Summary of Bookings.....	16
View History of Bookings	16

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 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

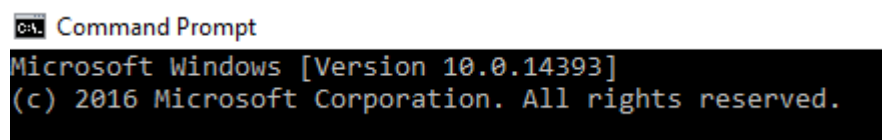
The follow application requires the proper environment to run the software.

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.

A screenshot of the Windows Command Prompt. The title bar reads "Command Prompt". The window content shows "Microsoft Windows [Version 10.0.14393]" and "(c) 2016 Microsoft Corporation. All rights reserved." in a monospaced font on a black background with white text.

```
Microsoft Windows [Version 10.0.14393]
(c) 2016 Microsoft Corporation. All rights reserved.
```

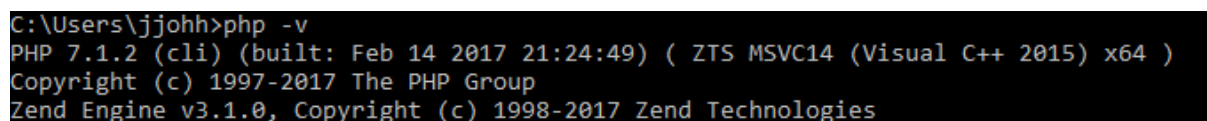
Web Browser

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.

A screenshot of the Windows Command Prompt showing the output of the 'php -v' command. The output displays PHP version 7.1.2 (cli) built on Feb 14 2017, along with ZTS, MSVC14, and x64 architecture details, copyright information for The PHP Group and Zend Technologies.

```
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

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

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*' to migrate database schemas (create tables in 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
```

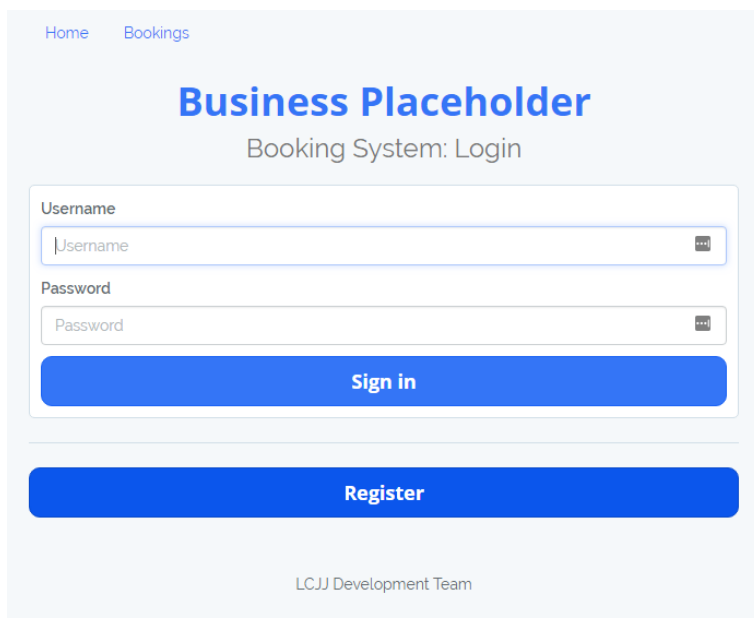
Ignore the timestamp prefix on the files, they do not have to be exactly the same as output shown above.

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 screenshot shows a web application interface for a 'Business Placeholder' booking system. At the top, there are two navigation links: 'Home' and 'Bookings'. The main heading is 'Business Placeholder' in a large, bold, blue font. Below it, the text 'Booking System: Login' is displayed. The login form consists of two input fields: 'Username' and 'Password', each with a placeholder text and a small icon on the right. Below these fields is a blue button labeled 'Sign in'. Below the 'Sign in' button is a blue button labeled 'Register'. 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 administrative actions and only be able to do the following:

- Login / Register as customer
- View Customer Bookings

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
- View Business Information
- View Employee Availability
- View a Summary of Bookings
- View a History of Bookings

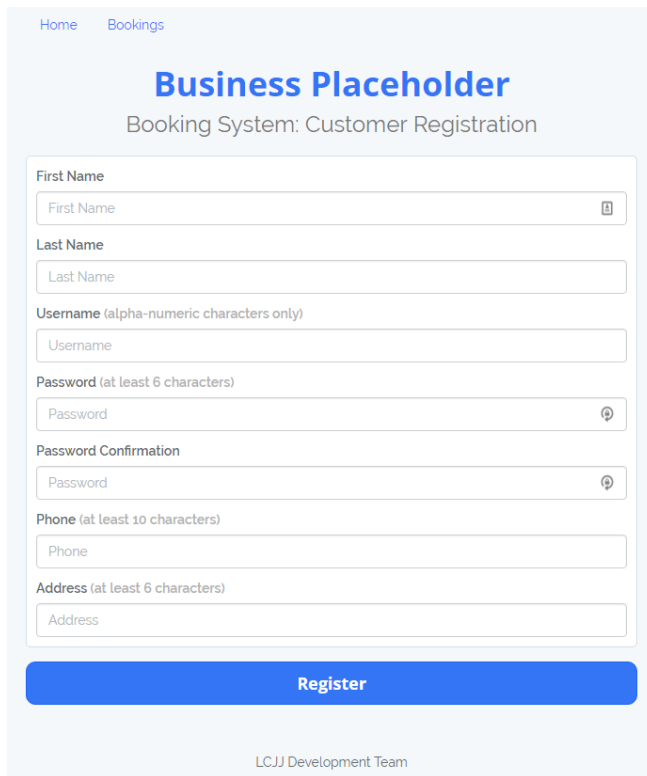
Requirements

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

Customer

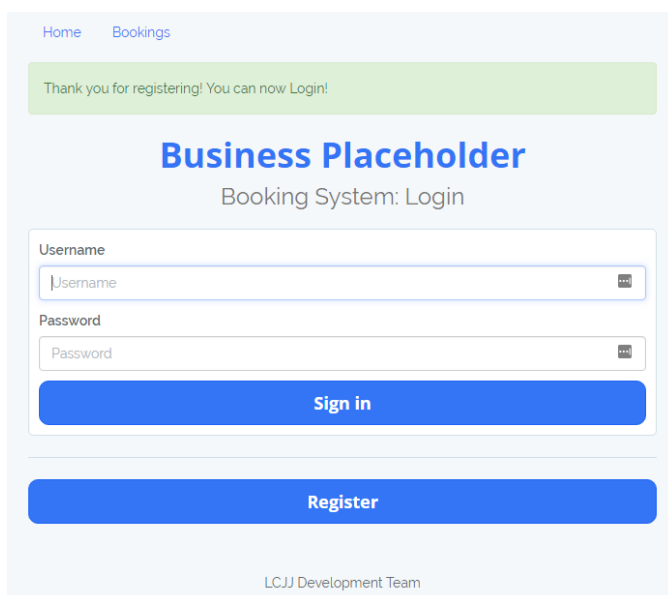
Register

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



The registration form is titled "Business Placeholder" with the subtitle "Booking System: Customer Registration". It includes a navigation bar with "Home" and "Bookings" links. The form fields are: First Name, Last Name, Username (with a note "alpha-numeric characters only"), Password (with a note "at least 6 characters"), Password Confirmation, Phone (with a note "at least 10 characters"), and Address (with a note "at least 6 characters"). Each field has a placeholder text and a small icon on the right. A blue "Register" button is at the bottom of the form. The footer says "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.



The login form is titled "Business Placeholder" with the subtitle "Booking System: Login". It includes a navigation bar with "Home" and "Bookings" links. A green message box at the top says "Thank you for registering! You can now Login!". The form fields are: Username and Password, both with placeholder text and a small icon on the right. A blue "Sign in" button is below the fields. A blue "Register" button is at the bottom of the form. The footer 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 customer username and password must exist before logging in. Follow the customer registration section to create a new customer.

Home Bookings

Business Placeholder

Booking System: Login

Username

Username

Password

Password

Sign in

Register

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.

Home Bookings

Logged in as john123 | Logout

Successfully logged in!

Business Placeholder

Booking System: Customer Bookings

ID	Start Time	End Time	Date	Duration
199	01:00 AM	12:30 PM	22/12/17	11:30
556	04:30 PM	12:30 AM	07/06/17	16:00
29	07:30 AM	08:00 PM	04/04/18	12:30
953	02:30 PM	12:00 AM	17/01/18	14:30
749	08:30 AM	10:00 PM	03/08/17	13:30
159	12:30 AM	06:30 PM	29/08/17	18:00
817	03:00 AM	08:00 AM	13/12/17	5:00
513	12:30 AM	05:00 AM	01/01/18	4:30
226	12:00 PM	04:30 PM	30/10/17	4:30

View Bookings

Visit /bookings to view all customer bookings.

For part A of the assignment, dummy data is provided to show that bookings exist. This will not be the case once the assignment is complete.

Home

Bookings

Logged in as john123 | [Logout](#)

Business Placeholder

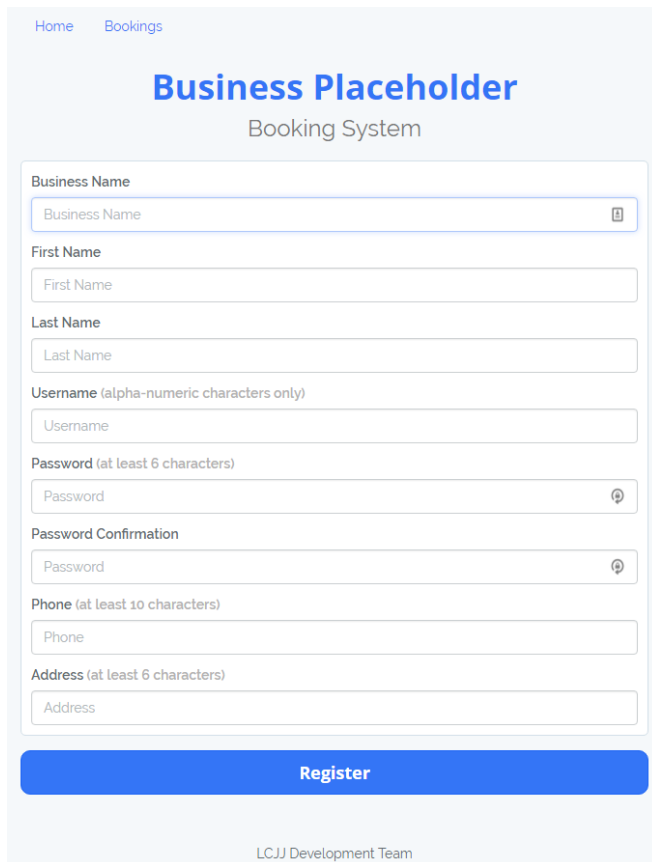
Booking System: Customer Bookings

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)

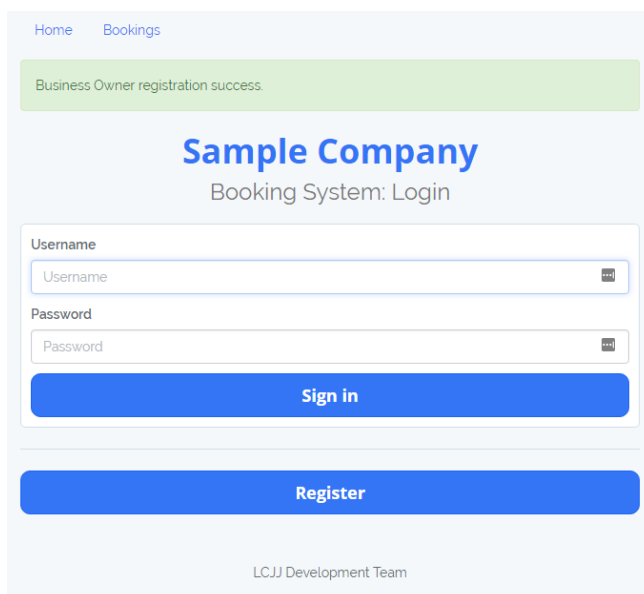
Register

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



The image shows a web form titled "Business Placeholder Booking System". At the top, there are navigation links for "Home" and "Bookings". The form contains several input fields: "Business Name" (with a help icon), "First Name", "Last Name", "Username" (with a note "alpha-numeric characters only"), "Password" (with a note "at least 6 characters" and a toggle icon), "Password Confirmation" (with a toggle icon), "Phone" (with a note "at least 10 characters"), and "Address" (with a note "at least 6 characters"). A large blue "Register" button is at the bottom of the form. The footer of the page reads "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.

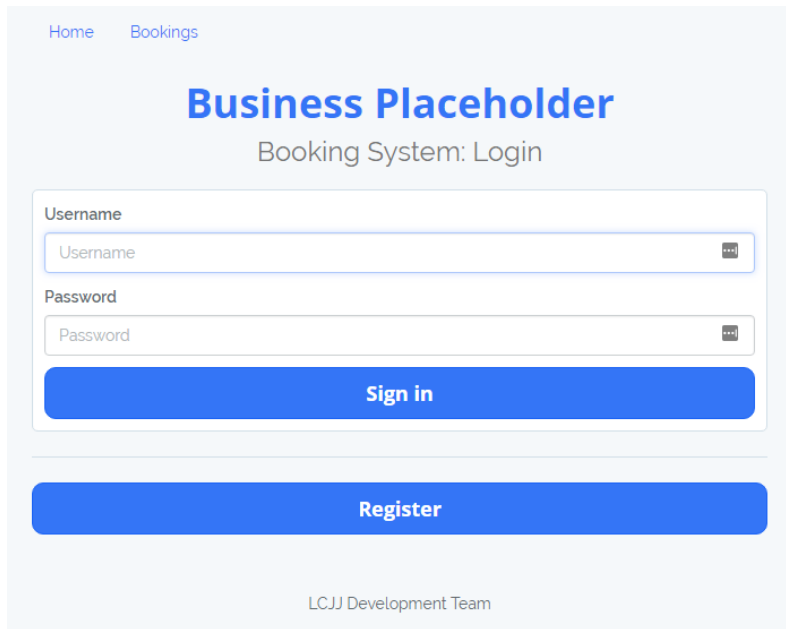


The image shows a web page titled "Sample Company Booking System: Login". At the top, there are navigation links for "Home" and "Bookings". A green message box at the top states "Business Owner registration success.". Below this, the page title "Sample Company" is displayed in large blue font, followed by "Booking System: Login". The login form includes "Username" and "Password" input fields, each with a toggle icon. A large blue "Sign in" button is positioned below the password field. At the bottom of the form, there is a blue "Register" button. The footer of the page reads "LCJJ Development Team".

Login

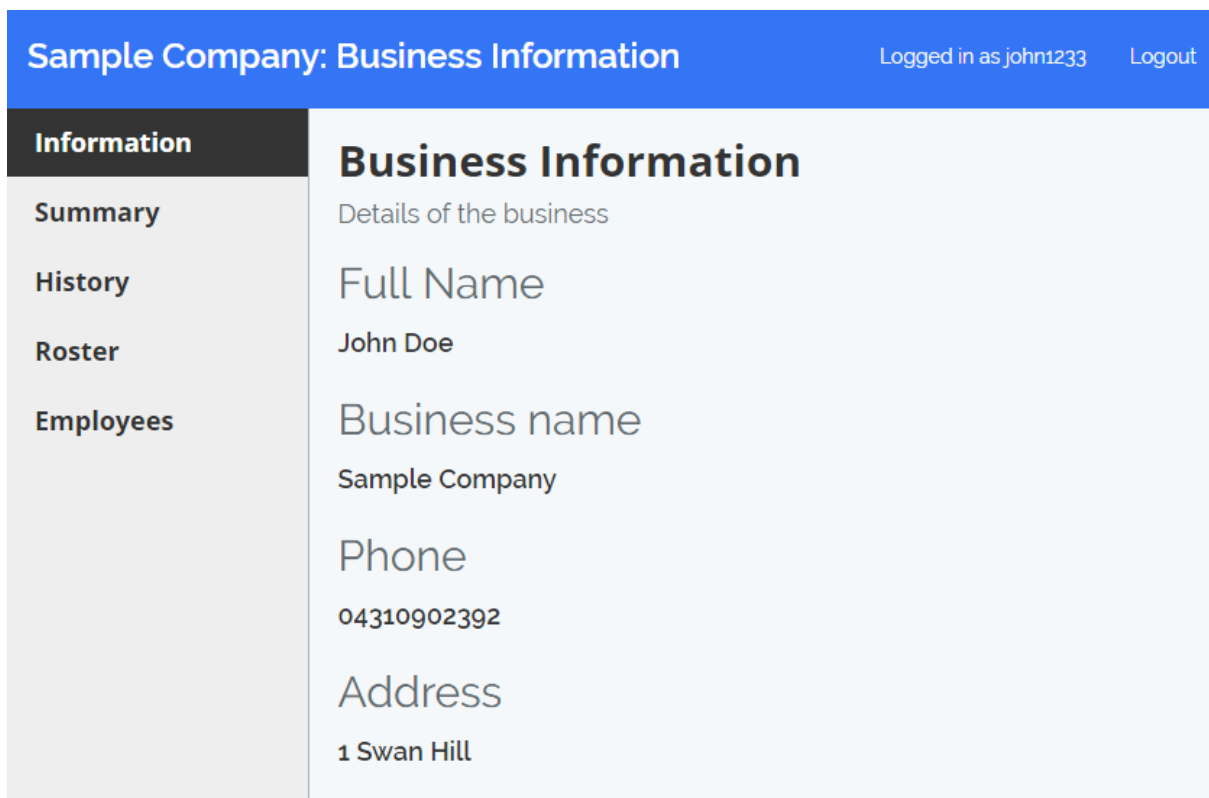
Visit the /login page or root of the application (<http://localhost:8000/> will redirect to /login). There will be an input form displayed with fields username and password.

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



The screenshot shows a web application interface for a 'Business Placeholder' booking system. 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 with a placeholder text and a toggle icon. A blue 'Sign in' button is positioned below the password field. Below the login form 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 a web application interface for 'Sample Company: Business Information'. The top navigation bar is blue and contains the title 'Sample Company: Business Information' on the left, and 'Logged in as john1233' and 'Logout' on the right. Below the navigation bar is a sidebar with a dark blue header 'Information' and four menu items: 'Summary', 'History', 'Roster', and 'Employees'. The main content area has a light blue background and a heading 'Business Information' in bold. Below the heading is the text 'Details of the business'. The main content area displays the following information: 'Full Name' (John Doe), 'Business name' (Sample Company), 'Phone' (04310902392), and 'Address' (1 Swan Hill).

Add 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 'Add Employee' button to submit the form.

Sample Company: Employees

Logged in as john1233Logout

Information

Summary

History

Roster

Employees

Add Employee

Add a new employee to the system

Job Title


First Name

Last Name

Phone (at least 10 characters)

Add Employee

Employees



No employees found.

Try add an employee using the form above.

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

Sample Company: Employees

Logged in as john1233Logout

Information

Summary

History

Roster

Employees

Add Employee

Add a new employee to the system

New Employee Added

Job Title

First Name

Last Name

Phone (at least 10 characters)

Add Employee

Employees

A table of all employees within the business.

ID	First Name	Last Name	Title	Date Created
1	John	Doe	Job	08/04/17

Add 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.

Sample Company: Roster

Logged in as johnt233 Logout

Information

Summary

History

Roster

Employees

Add Working Times

Add Business Hours for the next month

Employee (ID - Title - Full Name)

1 - Job - John Doe

Start Time (hh:mm AM/PM)

09:00 AM

End Time (hh:mm AM/PM)

05:00 PM

Day (Monday, Tuesday etc.)

Monday

Week (e.g. week 1 of month)

1

Add Working Time

Roster

Working hours for the next month

May 2017

Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1	01	02	03	04	05	06	07

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

Sample Company: Roster

Logged in as johnt233 Logout

Information

Summary

History

Roster

Employees

Roster

Working hours for the next month

May 2017

Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1	<div>John Doe</div> <div>Job</div> <div>09:00 AM - 05:00 PM</div> 01	02	03	04	05	06	07
2	08	09	10	11	12	13	14
3	15	16	17	18	19	20	21
4	22	23	24	25	26	27	28
	29	30	31	01	02	03	04

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 john1233Logout

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 Employee Availability

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

Sample Company: Summary of Bookings

Logged in as john1233Logout

Information

Summary

History

Roster

Employees

Summary of Bookings

Present latest bookings for the next 7 days.

ID	Customer	Start	End	Date	Duration
3	Shayna Beer	00:30	22:00	09/04/17	21:30
4	Celestino Jerde	09:00	19:00	09/04/17	10:00
5	Reynold Kilback	08:30	14:00	10/04/17	5:30
6	Allan Cartwright	01:30	20:30	10/04/17	19:00
7	Jayson Halvorson	00:30	15:30	13/04/17	15:00
9	Nathanael Schroeder	00:00	03:00	13/04/17	3:00
8	Cristina Effertz	17:30	19:00	14/04/17	1:30

Employee Availability

Show all employee availability for the next 7 days.

Employee Name	Sun 09/04	Mon 10/04	Tue 11/04	Wed 12/04	Thu 13/04	Fri 14/04	Sat 15/04
John Doe	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

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.

Information

Summary

History

Roster

Employees

Summary of Bookings

Present latest bookings for the next 7 days.

ID	Customer	Start	End	Date	Duration
3	Shayna Beer	00:30	22:00	09/04/17	21:30
4	Celestino Jerde	09:00	19:00	09/04/17	10:00
5	Reynold Kilback	08:30	14:00	10/04/17	5:30
6	Allan Cartwright	01:30	20:30	10/04/17	19:00
7	Jayson Halvorson	00:30	15:30	13/04/17	15:00
9	Nathanael Schroeder	00:00	03:00	13/04/17	3:00
8	Cristina Effertz	17:30	19:00	14/04/17	1:30

Employee Availability

Show all employee availability for the next 7 days.

Employee Name	Sun 09/04	Mon 10/04	Tue 11/04	Wed 12/04	Thu 13/04	Fri 14/04	Sat 15/04
John Doe	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

View History of Bookings

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

Sample Company: History

Logged in as john1233

Logout

Information

Summary

History

Roster

Employees

History of Bookings

Present older bookings.

ID	Customer	Start	End	Date
12	Kiana Schuster	02:30	13:30	07/03/17
15	Emil Hermann	04:00	18:00	04/03/17
23	Winona Lind	10:30	19:00	01/02/17
24	Mauricio Davis	09:30	18:00	28/12/16
14	Harold Zieme	21:30	23:00	15/12/16
26	Marley Smitham	07:30	08:30	26/11/16
13	Ernesto Gottlieb	08:30	13:30	01/10/16
21	Andreane Runolfsson	15:00	18:30	29/08/16
17	Jallyn Haag	00:00	16:30	12/08/16
18	Savanna Marquardt	06:00	13:00	10/08/16
29	Hazle Sauer	06:00	16:30	24/07/16
20	Isabelle Swaniawski	00:30	11:30	19/06/16
22	Corrine Morar	03:00	21:00	24/05/16
10	Leone Moore	11:00	00:30	28/04/16