

Vehicle Rental Management System

(Version 4.0)

Sign-In

username

password

Login

Man, I really love my furniture... me and my recliner go way back.

Jokes from icanhazdadjoke.com

Vehicle Rental App Guide

Developed & Written by: Wong Keng

Section 01

Introduction

Welcome to the Vehicle Rental Application

As part of the NTUC LearningHub Java Developer Course, all students are required to submit a Summative Project towards the end of the course.

The Vehicle Rental Application was developed with the following main requirements in mind.

1. It must have an intuitive UI and is easy to use.
2. It is not a self-service online application for the general masses.
3. It is to be used by the company's front-line customer service agents (CSA) who will assist the customer with their booking requirements and queries.
4. Login to the application is to be secured with username and password.
5. Access to the various menu items in the application will be controlled via the respective roles that each application user has been assigned by the App ADMIN.
6. Management Reporting is only accessible to user with MANAGER role.
7. CSA will be able to generate PDF invoices for the customers when the cars are returned at the end of the rental period.

The following sections of this guide will take the readers through the various aspects of the application. So, sit tight, buckle up and lets get rolling!

2

Launch The App

Launch & Login

To launch the app, the user will need to access the following URL via a web browser:

<https://wk-lhub-veh-rental-app.herokuapp.com/>

The login screen below will be presented to the user.

To Sign-In:

1. Enter username
2. Enter password
3. Click Login



Home Screen - 'USER' role

After successfully logging in, the user will be presented with the Home page of the application.

The menu items on the Navigation Bar is dependent on the assigned Role of the user.

The screen below shows the Home screen for a user with the 'USER' role.

The screenshot shows the home page of the Keng Car Rental application. At the top, there is a navigation bar with links for 'Keng Car Rental', 'Home', 'Customer Mgmt', 'User Mgmt', 'Booking Service Mgmt', 'Vehicle Mgmt', and 'About'. It also displays a welcome message 'Welcome: wk [USER]' and a 'Logout' button. The main content area features a large, semi-transparent background image of a lake and mountains. Overlaid on this image is a white rectangular box containing the following text:

Company Announcements

Due to the ongoing COVID-19 situation, we are operating in a very challenging and unprecedented environment. As founder and Executive Chairman of Keng Car Rental, I would like to thank all our staff for their continued dedication and support for the company and for staying focused on the needs of our customers.

Your dedication and support have greatly helped the company achieve another stellar performance for the latest financial quarter!!! As a result, the Board has approved a special one-off bonus of **6 months** for all permanent and contract staff who are on our payroll as of 1 April 2020. More details will be provided by the HR Director by the middle of May 2021.

The Board and I look forward to your continued support to go the 'extra mile' for our esteemed customers.

In the meantime, do also spend time with your loved ones and I hope that all of you and your family will continue to stay safe and healthy!

Wong Keng
Executive Chairman
Keng Car Rental

At the bottom left, it says '©Wong Keng Photography' and at the bottom right, it says 'Copyright © Keng Car Rental Pte Ltd'.

Home Screen - 'MANAGER' role

After successfully logging in, the user will be presented with the Home page of the application.

The menu items on the Navigation Bar is dependent on the assigned Role of the user.

The screen below shows the Home screen for a user with the 'MANAGER' role.

The screenshot shows the Keng Car Rental application's home screen. At the top, there is a blue header bar with the following navigation items: Keng Car Rental, Home, Customer Mgmt ▾, User Mgmt ▾, Booking Service Mgmt ▾, Vehicle Mgmt ▾, Management Reporting ▾, About, and Welcome: wong [MANAGER]. Below the header, the main content area has a light blue background featuring a scenic landscape with mountains and water. The title "Company Announcements" is centered in a large, bold, dark font. A white rectangular box contains the announcement text. The text reads:

Due to the ongoing COVID-19 situation, we are operating in a very challenging and unprecedented environment. As founder and Executive Chairman of Keng Car Rental, I would like to thank all our staff for their continued dedication and support for the company and for staying focused on the needs of our customers.

Your dedication and support have greatly helped the company achieve another stellar performance for the latest financial quarter!!! As a result, the Board has approved a special one-off bonus of **6 months** for all permanent and contract staff who are on our payroll as of 1 April 2020. More details will be provided by the HR Director by the middle of May 2021.

The Board and I look forward to your continued support to go the 'extra mile' for our esteemed customers.

In the meantime, do also spend time with your loved ones and I hope that all of you and your family will continue to stay safe and healthy!

Wong Keng
Executive Chairman
Keng Car Rental

Home Screen - 'ADMIN' role

After successfully logging in, the user will be presented with the Home page of the application.

The menu items on the Navigation Bar is dependent on the assigned Role of the user.

The screen below shows the Home screen for a user with the 'ADMIN' role.

The screenshot shows the mobile application's home screen for an 'ADMIN' user. At the top, there is a blue navigation bar with the following items from left to right: 'Car Rental', 'Home', 'Customer Mgmt ▾', 'User Mgmt ▾', 'Booking Service Mgmt ▾', 'Vehicle Mgmt ▾', and 'About'. To the right of these, it says 'Welcome: keng [ADMIN]'. Below the navigation bar is a large, semi-transparent background image of a landscape with mountains and water. Overlaid on this background is a white rectangular box containing the following text:

Company Announcements

Due to the ongoing COVID-19 situation, we are operating in a very challenging and unprecedented environment. As founder and Executive Chairman of Keng Car Rental, I will like to thank all our staff for their continued dedication and support for the company and for staying focused on the needs of our customers.

Your dedication and support have greatly helped the company achieve another stellar performance for the latest financial quarter!!! As a result, the Board has approved a special one-off bonus of **6 months** for all permanent and contract staff who are on our payroll as of 1 April 2020. More details will be provided by the HR Director by the middle of May 2021.

The Board and I look forward to your continued support to go the 'extra mile' for our esteemed customers.

In the meantime, do also spend time with your loved ones and I hope that all of you and your family will continue to stay safe and healthy!

Wong Keng
Executive Chairman
Keng Car Rental

3

Customer Management

Customer Management

All customer related functions are grouped under the “Customer Mgmt” menu on the Navigation Bar.

This menu is accessible to every authenticated users of the system, regardless of their role.

To access customer related function:

1. Click ‘Customer Mgmt’
2. Click required dropdown submenu

The screenshot shows a website for 'Keng Car Rental'. The top navigation bar includes links for Home, Customer Mgmt (with a dropdown menu), User Mgmt, Booking Service Mgmt, Vehicle Mgmt, and About. It also displays a welcome message for the user 'wk [USER]' and a Logout link. The main content area features a large image of a lake and mountains. A prominent banner with the text 'Competitiveness' is overlaid on the image. A dropdown menu for 'Customer Mgmt' is open, showing options: List Customer, Create Customer, and Search Customer By. Below the banner, a message from the Executive Chairman, Wong Keng, expresses gratitude for staff dedication during COVID-19 and announces a special bonus for permanent and contract staff. It also encourages spending time with loved ones. The message is signed by Wong Keng, Executive Chairman, Keng Car Rental. At the bottom left, there's a copyright notice for 'Wong Keng Photography' and at the bottom right, 'Copyright © Keng Car Rental Pte Ltd'.

List Customer ('USER')

The 'List Customer' submenu will display all customers in the system.

For 'USER' role, under Actions column, the CSA can only book a vehicle (Car icon) or edit the customer details (Pen & Paper icon).

To list all customers:

1. Click 'Customer Mgmt'
2. Click 'List Customer'

Keng Car Rental
Home
Customer Mgmt ▾
User Mgmt ▾
Booking Service Mgmt ▾
Vehicle Mgmt ▾
About
Welcome: wk [USER]
Logout

Customer List - All

CustID	First Name	Last Name	Date of Birth	Address	Email	CC Num	CC Expiry	Drv Lic No	Active	Phone No	Identity Proof	Actions
1	Ana	Iacopo	2015-07-30	67 Eastwood Pass	aiaacopo0@smh.com.au	3018818741262913	2023-05-02	506-58-7251	<input checked="" type="checkbox"/>	839-307-9667		
2	Alexei	Hutchason	2003-04-03	89 Lunder Way	ahutchason1@wisc.edu	3019242316412345	2022-01-02	456-70-6082	<input checked="" type="checkbox"/>	833-392-3424		
3	Adi	Wooles	1973-01-05	39 Autumn Leaf Street	awooles2@microsoft.com	4017957397094123	2021-01-07	567-51-2649	<input checked="" type="checkbox"/>	434-502-5804		
4	Jasmin	Plett	1970-05-21	50 Westend Alley	jplett3@t.co	6304798342242897	2026-07-19	814-72-3275	<input type="checkbox"/>	775-554-4326		
5	Orelle	Toyer	1974-12-18	227 Red Cloud Center	otoyer4@issuu.com	372301728846017	2023-01-02	326-14-6244	<input checked="" type="checkbox"/>	357-369-3623		

Total Number of Customers: 22

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List Customer ('MANAGER' & 'ADMIN')

The 'List Customer' submenu will display all customers in the system.

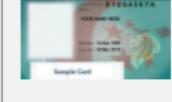
For 'MANAGER' or 'ADMIN' role, under Actions column, he/she can also delete (Trash Bin icon) the customer record.

To list all customers:

1. Click 'Customer Mgmt'
2. Click 'List Customer'

Keng Car Rental Home Customer Mgmt ▾ User Mgmt ▾ Booking Service Mgmt ▾ Vehicle Mgmt ▾ Management Reporting ▾ About Welcome: wong [MANAGER] Logout

Customer List - All

CustID	First Name	Last Name	Date of Birth	Address	Email	CC Num	CC Expiry	Drv Lic No	Active	Phone No	Identity Proof	Actions
1	Ana	Iacopo	2015-07-30	67 Eastwood Pass	aiaacopo0@smh.com.au	3018818741262913	2023-05-02	506-58-7251	<input checked="" type="checkbox"/>	839-307-9667		 
2	Alexei	Hutchason	2003-04-03	89 Lunder Way	ahutchason1@wisc.edu	3019242316412345	2022-01-02	456-70-6082	<input checked="" type="checkbox"/>	833-392-3424		 
3	Adi	Wooles	1973-01-05	39 Autumn Leaf Street	awoole2@microsoft.com	4017957397094123	2021-01-07	567-51-2649	<input checked="" type="checkbox"/>	434-502-5804		 
4	Jasmin	Plett	1970-05-21	50 Westend Alley	jplett3@t.co	6304798342242897	2026-07-19	814-72-3275	<input type="checkbox"/>	775-554-4326		 
5	Orelle	Toyer	1974-12-18	227 Red Cloud Center	otoyer4@issuu.com	372301728846017	2023-01-02	326-14-6244	<input checked="" type="checkbox"/>	357-369-3623		 

Total Number of Customers: 23

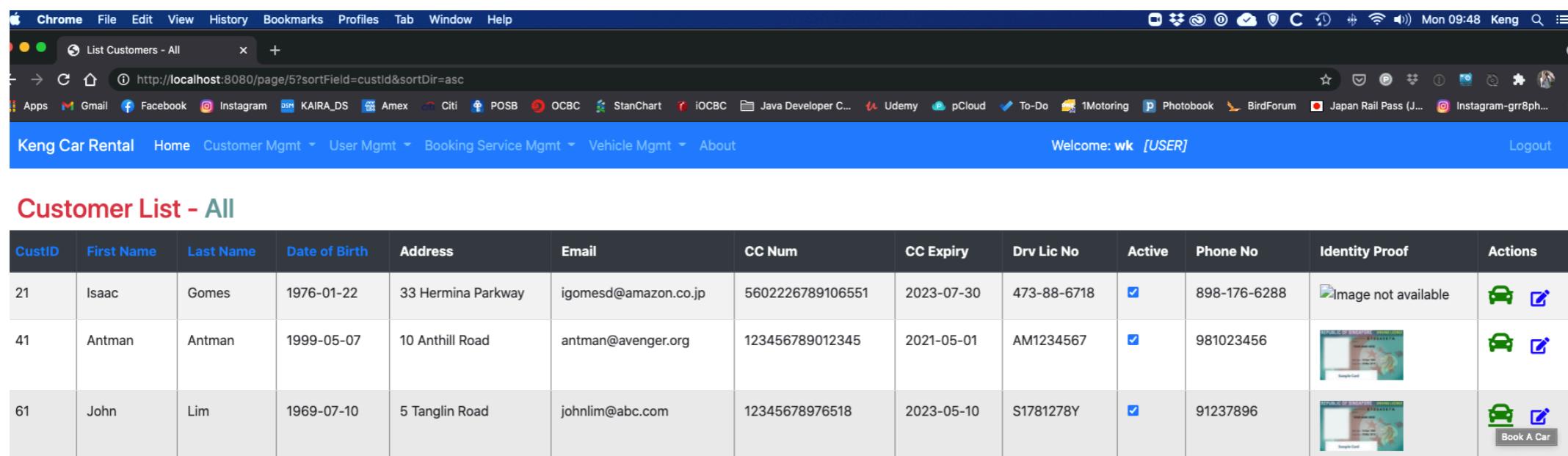
Book A Car ('USER', 'MANAGER' & 'ADMIN')

Clicking the Car icon allows the user to assist the customer to select and book an available car of their choice.

Note: Only active customer can book a car. The customer is inactive, the car icon is greyed out eg. Just ID: 4).

To book a car:

1. Click the Car icon under the Actions column



CustID	First Name	Last Name	Date of Birth	Address	Email	CC Num	CC Expiry	Drv Lic No	Active	Phone No	Identity Proof	Actions
21	Isaac	Gomes	1976-01-22	33 Hermina Parkway	igomesd@amazon.co.jp	5602226789106551	2023-07-30	473-88-6718	<input checked="" type="checkbox"/>	898-176-6288	 Image not available	 
41	Antman	Antman	1999-05-07	10 Anthill Road	antman@avenger.org	123456789012345	2021-05-01	AM1234567	<input checked="" type="checkbox"/>	981023456	 Driver's Card	 
61	John	Lim	1969-07-10	5 Tanglin Road	johnlim@abc.com	12345678976518	2023-05-10	S1781278Y	<input checked="" type="checkbox"/>	91237896	 Driver's Card	  Book A Car

Total Number of Customers: 23

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Book A Car ('USER', 'MANAGER' & 'ADMIN')

After clicking the Car icon, the user will be presented with a list of available cars for selection.

A confirmation window will appear when the user has selected a car.

To select a car:

1. Click the 'Select' button to select the respective car.
2. Click 'Select' button to select a car

The screenshot shows a web-based application for car rental. At the top, there is a navigation bar with the following items: 'Keng Car Rental', 'Home', 'Customer Mgmt', a dropdown menu, 'User Mgmt', 'Confirm selection of the Vehicle?', 'Welcome: wk [USER]', and 'Logout'. Below the navigation bar, there is a grid of car listings. Each listing includes a thumbnail image, the car's name, its engine capacity, seating capacity, fuel type, daily rate, and a 'Select' button.

Car Model	Engine Capacity	Seating Capacity	Fuel Type	Daily Rate (SGD)	Action
Hyundai Trajet	2000	6	Petrol	120.0	Select
Mazda Millenia	1600	4	Petrol	50.0	Select
Cadillac DeVille	2000	4	Petrol	70.0	Select
Mitsubishi					
Toyota					
Plymouth					

Book A Car ('USER', 'MANAGER' & 'ADMIN')

After the user confirm the selection, the next screen will show the booking page.

Note: The 'Book Vehicle' button is initially deactivated. It is only activated after the Start Date and Expected Return Date are input, and the Total Charge computed after clicking the Cash Register icon.

To book a car:

1. Enter Start Date/Time
2. Enter Expected Return Date/Time
3. Click Cash Register to compute Total Charge

The screenshot shows the 'New Booking' page of the Keng Car Rental system. The top navigation bar includes links for Home, Customer Mgmt, User Mgmt, Booking Service Mgmt, Vehicle Mgmt, and About. The user is logged in as 'wk [USER]'. The main content area features a 'New Booking' header and a 'Sample Card' placeholder for a driving license. Below it, customer details for 'John Lim' are listed, including birth date (1969-07-10), address (5 Tanglin Road), driving license number (S1781278Y), email (johnlim@abc.com), phone (91237896), credit card number (12345678976518), and credit card expiry (2023-05-10). To the right, a 'Hyundai/Trajet' vehicle is shown with its registration number (SLM1234R), engine capacity (2000), seating capacity (6), fuel type (Petrol), and hire rate (SGD 120.0). The rental section contains fields for 'Start Date/Time' and 'Expected Return Date/Time'. A note indicates GST (7.0%) and duration (0 days). The total charge with GST is displayed as SGD 0.0. A 'Click To Compute Total' button is present. At the bottom, there are 'Book Vehicle' and 'Cancel' buttons.

Book A Car ('USER', 'MANAGER' & 'ADMIN')

After the Total Charge has been computed, the 'Book Vehicle' button is now activated. The user can now submit the booking by clicking it.

The 'Cancel' button can be clicked anytime and this will take the user back to the List Customer page.

To book a car:

1. Click 'Book Vehicle' button

Keng Car Rental Home Customer Mgmt ▾ User Mgmt ▾ Booking Service Mgmt ▾ Vehicle Mgmt ▾ About Welcome: wk [USER] Logout

New Booking



Sample Card

John Lim

Customer Details

Date of Birth: 1969-07-10
Address: 5 Tanglin Road
Driving License No.: S1781278Y
Email: johnlim@abc.com
Phone: 91237896
Credit Card No.: 12345678976518
Credit Card Expiry: 2023-05-10



Hyundai/Trajet

Vehicle Details

Registration Number: SLM1234R
Engine Capacity: 2000
Seating Capacity: 6
Fuel Type: Petrol
Hire Rate (SGD): 120.0

Hyundai/Trajet

Rental Details

Start Date/Time: 10/05/2021, 09:52

Expected Return Date/Time: 14/05/2021, 09:52

GST (%): 7.0
Duration (Days): 4

Total Charge with GST (SGD): 513.60

Book A Car ('USER', 'MANAGER' & 'ADMIN')

After submitting the booking, the user will be returned to the Booking List - All page. And if the booking is successful, a message (with green background) will be flashed across the top portion of the page to inform the user.

To book a car:

1. No action needed

Keng Car Rental Home Customer Mgmt ▾ User Mgmt ▾ Booking Service Mgmt ▾ Vehicle Mgmt ▾ About Welcome: wk [USER] Logout

Booking successfully Saved.

Booking List - All

Booking ID	Start Date/Time	Expected Return Date/Time	Actual Return Date/Time	Customer Name	Vehicle Lic No.	Vehicle Rate (SGD)	Rental Duration	Total with GST (SGD)	Agent Name	Created Date	Modified Date	Actions
121	2021-05-10T09:52	2021-05-14T09:52		John Lim	SLM1234R	120.00	4	513.60	wk wk	2021-05-10T9:53		 
102	2020-07-08T16:24	2020-07-12T16:25	2020-07-12T16:25	Orelle Toyer	SLT6590N	250.00	4	1,070.00	wong wong	2021-05-08T16:25	2021-05-08T16:25	 
101	2020-06-08T15:03	2020-06-11T15:03	2020-06-11T15:03	Ironman Stark	SLT6590N	250.00	3	802.50	wong wong	2021-05-08T15:03	2021-05-08T15:04	 
83	2021-05-07T19:21	2021-05-09T19:21	2021-05-09T13:43	Alida Challiss	SLR1287N	70.00	2	149.80	wk wk	2021-05-07T19:21	2021-05-08T13:43	 
82	2021-05-07T18:32	2021-05-08T18:32	2021-05-08T19:01	Ana Iacopo	SLD5790W	50.00	1	53.50	wk wk	2021-05-07T18:32	2021-05-07T19:01	 

Total Number of Bookings: 14

Create Customer ('USER', 'MANAGER' & 'ADMIN')

The next submenu item under the 'Customer Mgmt' menu is 'Create New Customer'.

This submenu will allow the user to create a new customer record in the system.

Note: Required data is validated before user can save the record.

To create a new customer:

1. Select 'Create New Customer'
2. Enter required details
3. Click 'Save Customer Details' button

The screenshot shows a web-based application for creating a new customer. The top navigation bar includes links for Keng Car Rental, Home, Customer Mgmt, User Mgmt, Booking Service Mgmt, Vehicle Mgmt, and About. It also displays a welcome message for user 'wk' and a logout link. The main content area is titled 'Driving License Number : S1781278Y'. It is divided into several sections:

- Name / DOB:** Contains fields for First Name (with validation 'Please enter your Firstname'), Last Name (with validation 'Please enter your Lastname'), Date of Birth (with validation 'Date of Birth is required'), and a placeholder 'Image Not Selected Yet'.
- Credit Card Details / Status:** Contains fields for Credit Card Number (with validation 'Please enter a valid Credit Card Number'), Credit Card Expiry Date (with validation 'Credit Card Expiry Date is required'), and an 'Is Active?' checkbox.
- Contact Details:** Contains fields for Address (with validation 'Please provide an Address') and Email (with validation 'This field is required').
- Image:** A section for uploading identity proof, featuring a 'Choose file' button and a note that no file has been chosen. It specifies a maximum file size of 1Mb or less.

At the bottom of the form, there is a copyright notice for Keng Car Rental Pte Ltd and a placeholder for a phone number.

Create Customer ('USER', 'MANAGER' & 'ADMIN')

The next submenu item under the 'Customer Mgmt' menu is 'Create New Customer'.

This submenu will allow the user to create a new customer record in the system.

Note: Required data is validated before user can save the record.

To create a new customer:

1. Select 'Create New Customer'
2. Enter required details
3. Click 'Save Customer Details' button

The screenshot shows a web-based application for creating a new customer. The top navigation bar includes links for Keng Car Rental, Home, Customer Mgmt, User Mgmt, Booking Service Mgmt, Vehicle Mgmt, About, and Logout. The current user is 'wk [USER]'. The main title is 'Create New Customer'.

The form is divided into several sections:

- Driving License Number :** S1781278Y
- Name / DOB**:
 - First Name : John
 - Last Name : Lim
 - Date of Birth : 10/07/1969
- Credit Card Details / Status**:
 - Credit Card Number : 12345678976518
 - Credit Card Expiry Date : 10/05/2023
 - Is Active? :
- Contact Details**:
 - Address : 5 Tanglin Road
 - Email : johnlim@abc.com
 - Phone Number : 91237896
- Image**:
 - Identity Proof : Choose file driving-licence.jpeg
 - A preview image of a Singapore Driving Licence card is shown, featuring the text 'REPUBLIC OF SINGAPORE DRIVING LICENCE' and 'Sample Card'.

At the bottom, there are buttons for 'Save Customer Details' and 'Back to Listing'.

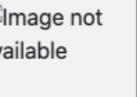
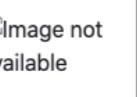
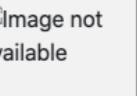
Create Customer ('USER', 'MANAGER' & 'ADMIN')

On successful saving of customer record, the user will be shown the Customer List - All page.

A message (with green background) will be flashed across the top portion of the page to inform the user.

To create a new customer:

1. No action needed

Keng Car Rental Home Customer Mgmt ▾ User Mgmt ▾ Booking Service Mgmt ▾ Vehicle Mgmt ▾ About												Welcome: wk [USER]	Logout
Record successfully Saved.													
Customer List - All													
CustID	First Name	Last Name	Date of Birth	Address	Email	CC Num	CC Expiry	Drv Lic No	Active	Phone No	Identity Proof	Actions	
61	John	Lim	1969-07-10	5 Tanglin Road	johnlim@abc.com	12345678976518	2023-05-10	S1781278Y	<input checked="" type="checkbox"/>	91237896	 Sample Card	 	
41	Antman	Antman	1999-05-07	10 Anthill Road	antman@avenger.org	123456789012345	2021-05-01	AM1234567	<input checked="" type="checkbox"/>	981023456	 Sample Card	 	
21	Isaac	Gomes	1976-01-22	33 Hermina Parkway	igomesd@amazon.co.jp	5602226789106551	2023-07-30	473-88-6718	<input checked="" type="checkbox"/>	898-176-6288	 Image not available	 	
20	Karlene	Chavrin	2003-10-28	21 Pleasure Street	kchavrinb@umn.edu	6762091710196647	2028-04-11	647-77-5904	<input checked="" type="checkbox"/>	566-413-2090	 Image not available	 	
19	Anita	Antham	1990-02-25	13024 Elgar Hill	aantham6@github.com	6759862099235377	2024-07-13	330-26-0455	<input checked="" type="checkbox"/>	936-105-1975	 Image not available	 	

Total Number of Customers: 23

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03 Customer Management - Search Customer

Search Customer ('USER', 'MANAGER' & 'ADMIN')

The next submenu under 'Customer Mgmt' is for searching of customer in the system. There are 3 ways to search;

- By Customer Name
- By Customer Email
- By Customer Driving Lic No.

To search for a customer:

1. Select the required option from the submenu

The screenshot shows the Keng Car Rental website interface. At the top, there is a blue header bar with the company name 'Keng Car Rental' and various navigation links: Home, Customer Mgmt, User Mgmt, Booking Service Mgmt, Vehicle Mgmt, and About. On the right side of the header, it says 'Welcome: wk [USER]' and 'Logout'. Below the header, the main content area has a blue background image of a lake and mountains. On the left, there is a sidebar with options: List Customer, Create Customer, and Search Customer By. The 'Search Customer By' option is expanded, showing three sub-options: 1. Customer Name, 2. Customer Email, and 3. Customer Driving Lic No. In the center of the page, there is a message about the COVID-19 situation and a special bonus for employees. At the bottom left, there is a signature block for Wong Keng, Executive Chairman of Keng Car Rental. The footer contains copyright information: '©Wong Keng Photography' and 'Copyright © Keng Car Rental Pte Ltd'.

03 Customer Management - Search Customer

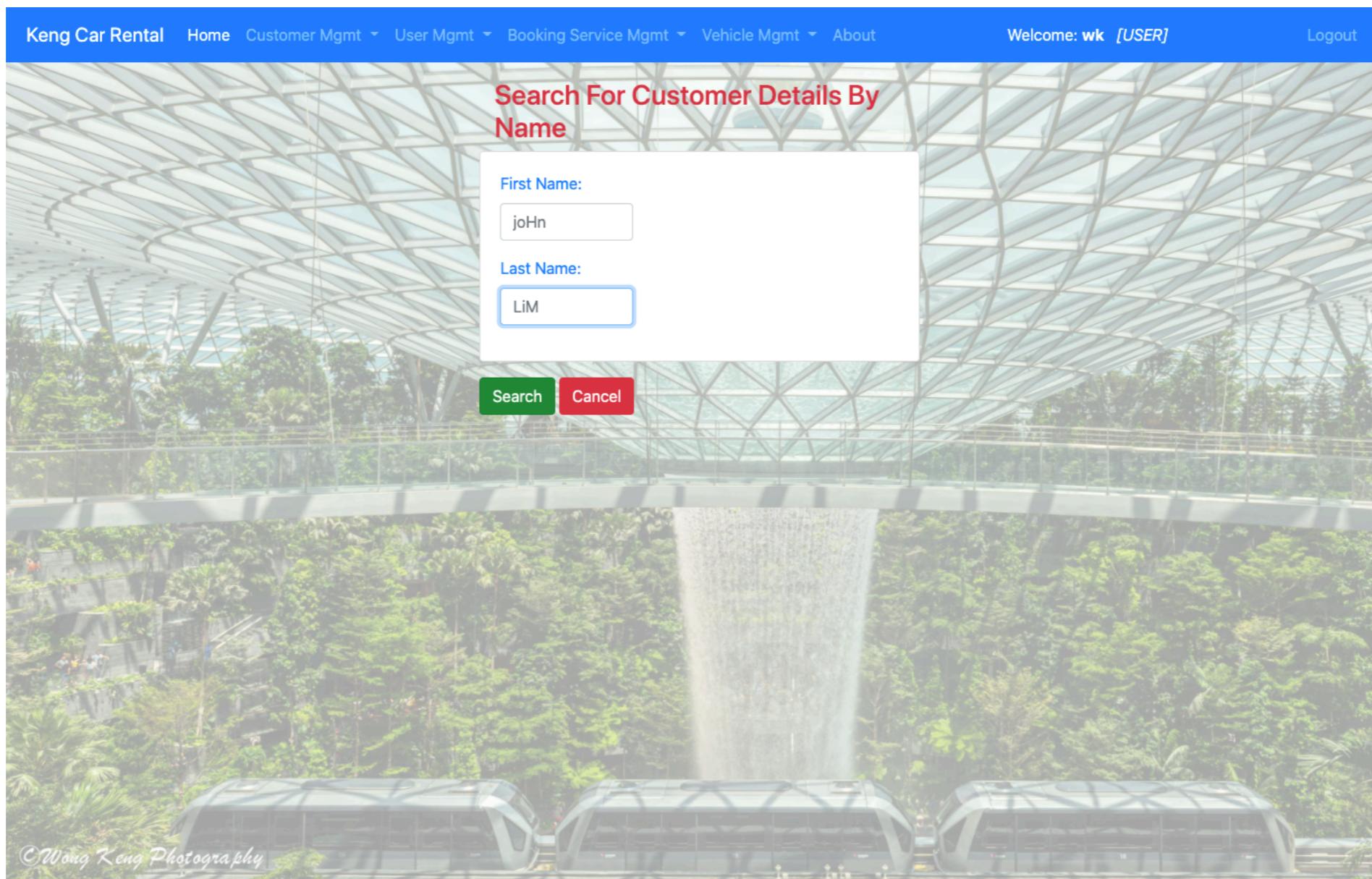
By Customer Name ('USER', 'MANAGER' & 'ADMIN')

Searching by Customer Name.

Note: The First and Last name fields are case insensitive.

To search for a customer:

1. Select the 'Customer Name' option from the submenu
2. Enter Firstname and Lastname
3. Click 'Search' button



By Customer Name ('USER', 'MANAGER' & 'ADMIN')

Result page for Searching by Customer Name.

To search for a customer:

1. No action required



Customer List - by Name

CustID	First Name	Last Name	Date of Birth	Address	Email	CC Num	CC Expiry	Drv Lic No	Active	Phone No	Identity Proof	Actions
61	John	Lim	1969-07-10	5 Tanglin Road	johnlim@abc.com	12345678976518	2023-05-10	S1781278Y	<input checked="" type="checkbox"/>	91237896		 

Total Number of Customers: 1

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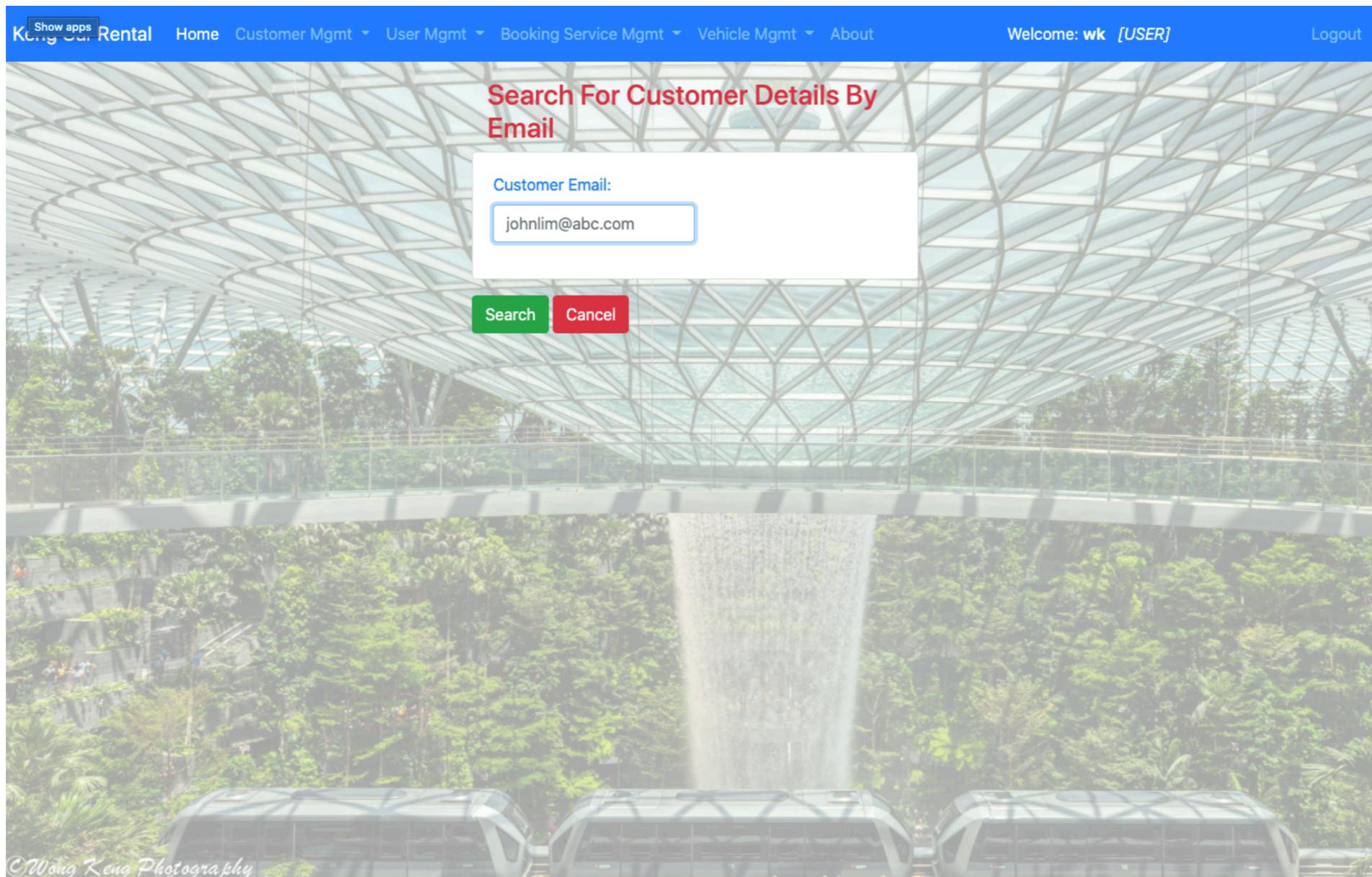
03 Customer Management - Search Customer

By Customer Email ('USER', 'MANAGER' & 'ADMIN')

Searching by Customer Email.

To search for a customer:

1. Select the 'Customer Email' option from the submenu
2. Enter Email address
3. Click 'Search' button



By Customer Email ('USER', 'MANAGER' & 'ADMIN')

Result page for Searching by Customer Email.

To search for a customer:

1. No action required



Customer List - by Customer's Email

CustID	First Name	Last Name	Date of Birth	Address	Email	CC Num	CC Expiry	Drv Lic No	Active	Phone No	Identity Proof	Actions
61	John	Lim	1969-07-10	5 Tanglin Road	johnlim@abc.com	12345678976518	2023-05-10	S1781278Y	<input checked="" type="checkbox"/>	91237896		

Total Number of Customers: 1

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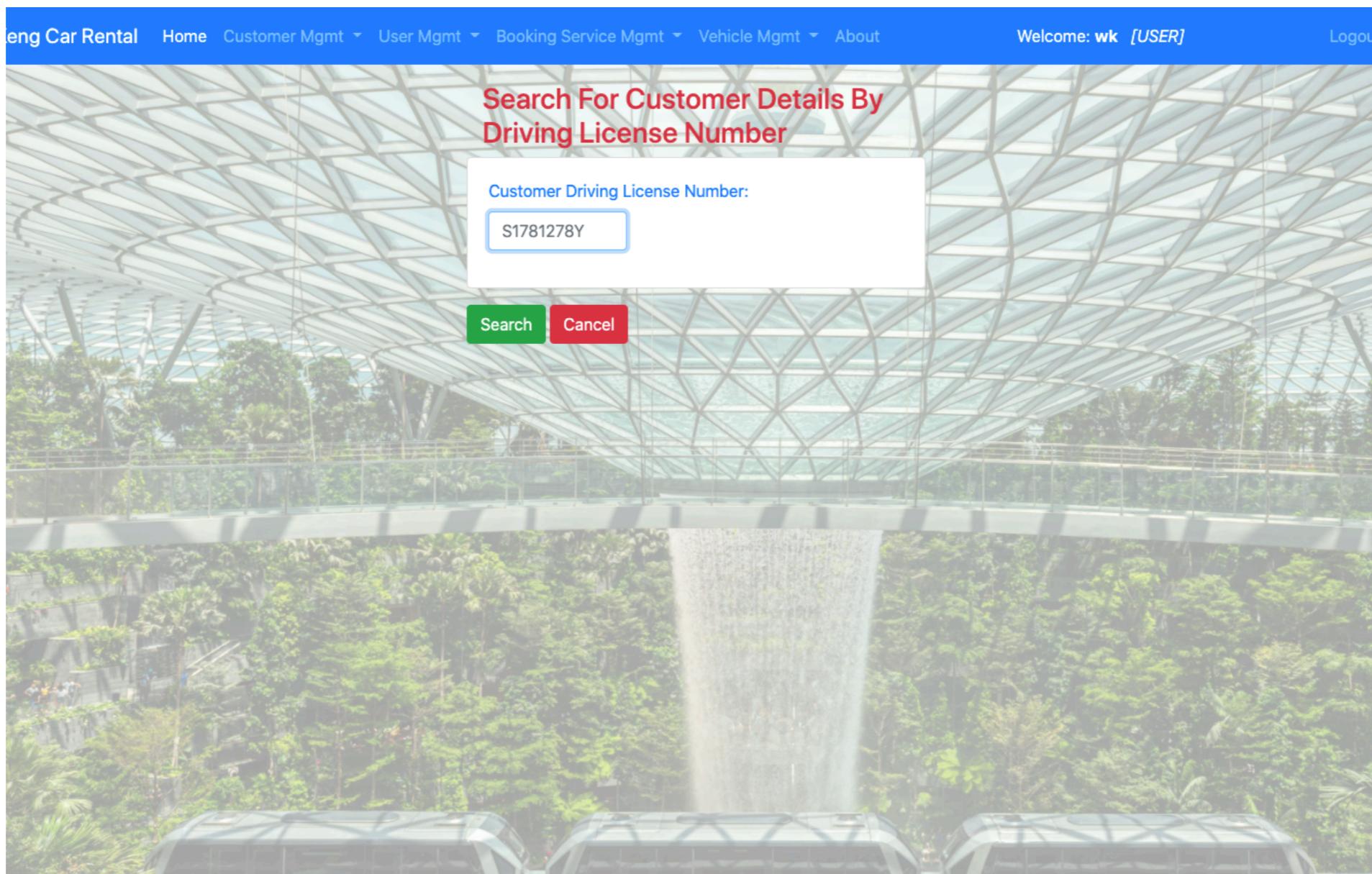
03 Customer Management - Search Customer

By Customer Driving Lic Number (‘USER’, ‘MANAGER’ & ‘ADMIN’)

Searching by Customer Driving License Number.

To search for a customer:

1. Select the ‘Customer Driving Lic No.’ option from the submenu
2. Enter the license information
3. Click ‘Search’ button



By Customer Driving Lic Number (‘USER’, ‘MANAGER’ & ‘ADMIN’)

Result page for searching by Customer Driving License Number.

To search for a customer:

1. No action required



Customer List - by Customer's Driving License Number

CustID	First Name	Last Name	Date of Birth	Address	Email	CC Num	CC Expiry	Drv Lic No	Active	Phone No	Identity Proof	Actions
61	John	Lim	1969-07-10	5 Tanglin Road	johnlim@abc.com	12345678976518	2023-05-10	S1781278Y	<input checked="" type="checkbox"/>	91237896		 

Total Number of Customers: 1

Page 1 of 1 -   1  

4

User Management

User Management - List User (‘USER’ & ‘MANAGER’)

For User Management, all users with ‘USER’ or ‘Manager’ role will only be able to see their own record.

The screen below shows the result of the ‘List User’ for a user with ‘MANAGER’ role.

To access User related function:

1. Click ‘User Mgmt’
2. Click ‘List User’ submenu

The screenshot shows a web-based application interface for 'Keng Car Rental'. At the top, there is a blue header bar with the following navigation links: 'Home', 'Customer Mgmt', 'User Mgmt', 'Booking Service Mgmt', 'Vehicle Mgmt', 'Management Reporting', and 'About'. On the right side of the header, it says 'Welcome: wong [MANAGER]' and has a 'Logout' link. Below the header, the main content area has a title 'User List - by Name'. Underneath the title is a table with the following columns: UserID, Username, First Name, Last Name, Role, Enabled, and Actions. There is one row of data in the table, corresponding to the user 'wong' with UserID 2. The 'Actions' column contains two icons: a blue checkmark and a blue key icon. At the bottom of the table, it says 'Total Number of Users: 1'. Below that, it says 'Page 1 of 1 -' followed by several small navigation icons.

UserID	Username	First Name	Last Name	Role	Enabled	Actions
2	wong	wong	wong	MANAGER	<input checked="" type="checkbox"/>	

Total Number of Users: 1

Page 1 of 1 - 1

User Management - Change Password (‘USER’ & ‘MANAGER’)

The user can change their own password by selecting the ‘Key’ icon under the Actions column.

To change user password:

1. Click ‘Key’ icon



User List - by Name

UserID	Username	First Name	Last Name	Role	Enabled	Actions
2	wong	wong	wong	MANAGER	<input checked="" type="checkbox"/>	

Total Number of Users: 1

Page 1 of 1 -   1  

User Management - Change Password (‘USER’ & ‘MANAGER’)

The user can only change the password. The Username, First Name and Last Name cannot be changed.

Note: ‘New Password’ must match the re-entered New Password. And ‘Old Password’ must match the one in the system before the new one can be accepted.

To change user password:

1. Enter ‘Old Password’
2. Enter ‘New Password’
3. Re-enter ‘New Password’
4. Click ‘Change Password’ button

The screenshot shows a web application interface for 'Keng Car Rental'. The top navigation bar includes links for Home, Customer Mgmt, User Mgmt, Booking Service Mgmt, Vehicle Mgmt, and Management Reporting. The main content area has a title 'Change Password' and a form with the following fields:

- Username :
- First Name :
- Last Name :
- Old Password :
- New Password :
- Re-enter New Password :

At the bottom are two buttons: 'Change Password' (blue) and 'Back to Listing' (red).

User Management - Change Password (‘USER’ & ‘MANAGER’)

If the ‘Old Password’ does not match the one currently in the system, an error message will be flashed across the page when the ‘Change Password’ button is clicked.

To change user password:

1. Enter WRONG ‘Old Password’
2. Enter ‘New Password’
3. Re-enter ‘New Password’
4. Click ‘Change Password’ button

Keng Car Rental Home Customer Mgmt ▾ User Mgmt ▾ Booking Service Mgmt ▾ Vehicle Mgmt ▾ Management Reporting ▾ About Welcome: wong [MANAGER]

Password change FAILED! Invalid Old Password.

User List - by Name

User ID	Username	First Name	Last Name	Role	Enabled	Actions
2	wong	wong	wong	MANAGER	<input checked="" type="checkbox"/>	

Total Number of Users: 1

Page 1 of 1 -   1  

User Management - Change Password (‘USER’ & ‘MANAGER’)

Error message when the ‘New Password’ does not matched the re-entered ‘New Password’ page.

To change user password:

1. Enter ‘Old Password’
2. Enter ‘New Password’
3. Re-enter not matching ‘New Password’
4. Click ‘Change Password’ button

Keng Car Rental Home Customer Mgmt ▾ User Mgmt ▾ Booking Service Mgmt ▾ Vehicle Mgmt ▾ Management R

Change Password

Username : wong

First Name : wong

Last Name : wong

Old Password :

New Password :

Re-enter New Password :

Passwords do not match. Please re-enter.

Change Password Back to Listing

User Management ('ADMIN')

For User Management, users with 'ADMIN' role will have two additional submenu items; namely 'Create User' and 'Search User By Name'

The screen below shows the submenu items for a user with 'ADMIN' role.

To access User related function:

1. Click 'User Mgmt'

Keng Car Rental Home Customer Mgmt ▾ User Mgmt ▾ Booking Service Mgmt ▾ Vehicle Mgmt ▾ About Welcome: keng [ADMIN]

Company Announcements

List User
Create User
Search User By Name

Due to the ongoing COVID-19 situation, we are operating in a very challenging and unprecedented environment. As founder and Executive Chairman of Keng Car Rental, I will like to thank all our staff for their continued dedication and support for the company and for staying focused on the needs of our customers.

Your dedication and support have greatly helped the company achieve another stellar performance for the latest financial quarter!!! As a result, the Board has approved a special one-off bonus of **6 months** for all permanent and contract staff who are on our payroll as of 1 April 2020. More details will be provided by the HR Director by the middle of May 2021.

The Board and I look forward to your continued support to go the 'extra mile' for our esteemed customers.

In the meantime, do also spend time with your loved ones and I hope that all of you and your family will continue to stay safe and healthy!

Wong Keng
Executive Chairman
Keng Car Rental

User Management - List User ('ADMIN')

For User Management, users with 'ADMIN' role will be able to see all user records.

The screen below shows the result of the 'List User' for a user with 'ADMIN' role.

The icons in the Actions column are; from left to right, Password Reset, Update User Details and Delete.

To access User related function:

1. Click 'User Mgmt'
2. Click 'List User' submenu

User List - All

UserID	Username	First Name	Last Name	Role	Enabled	Actions
1	wk	wk	wk	USER	<input checked="" type="checkbox"/>	  
2	wong	wong	wong	MANAGER	<input checked="" type="checkbox"/>	  
3	keng	keng	keng	ADMIN	<input checked="" type="checkbox"/>	  
4	test9	test9	test9	ADMIN	<input checked="" type="checkbox"/>	  

Total Number of Users: 4

User Management - Password Reset (‘ADMIN’)

To reset user’s password:

1. Click ‘Password Reset’ icon

User List - All

UserID	Username	First Name	Last Name	Role	Enabled	Actions
1	wk	wk	wk	USER	<input checked="" type="checkbox"/>	  
2	wong	wong	wong	MANAGER	<input checked="" type="checkbox"/>	  
3	keng	keng	keng	ADMIN	<input checked="" type="checkbox"/>	  
4	test9	test9	test9	ADMIN	<input checked="" type="checkbox"/>	  

Total Number of Users: 4

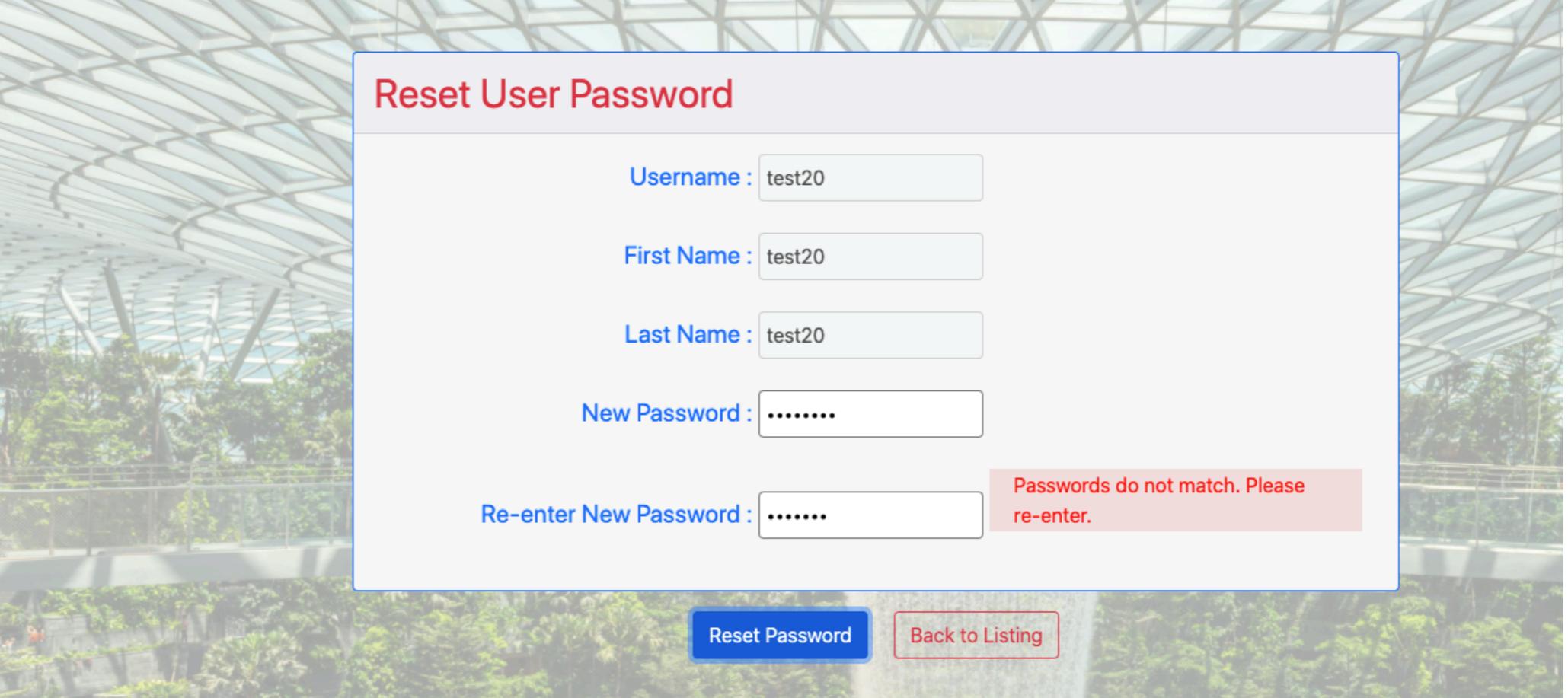
User Management - Password Reset (‘ADMIN’)

New and re-entered passwords must match before Admin can reset the password.

In this case, there is no need to enter the user’s current (old) password.

To reset user’s password:

1. Click ‘Password Reset’ icon
2. Enter ‘New Password’
3. Re-enter ‘New Password’
4. Click ‘Reset Password’ button



Keng Car Rental Home Customer Mgmt ▾ User Mgmt ▾ Booking Service Mgmt ▾ Vehicle Mgmt ▾ About Welcome: keng [ADMIN] Logout

Reset User Password

Username : test20

First Name : test20

Last Name : test20

New Password :

Re-enter New Password :

Passwords do not match. Please re-enter.

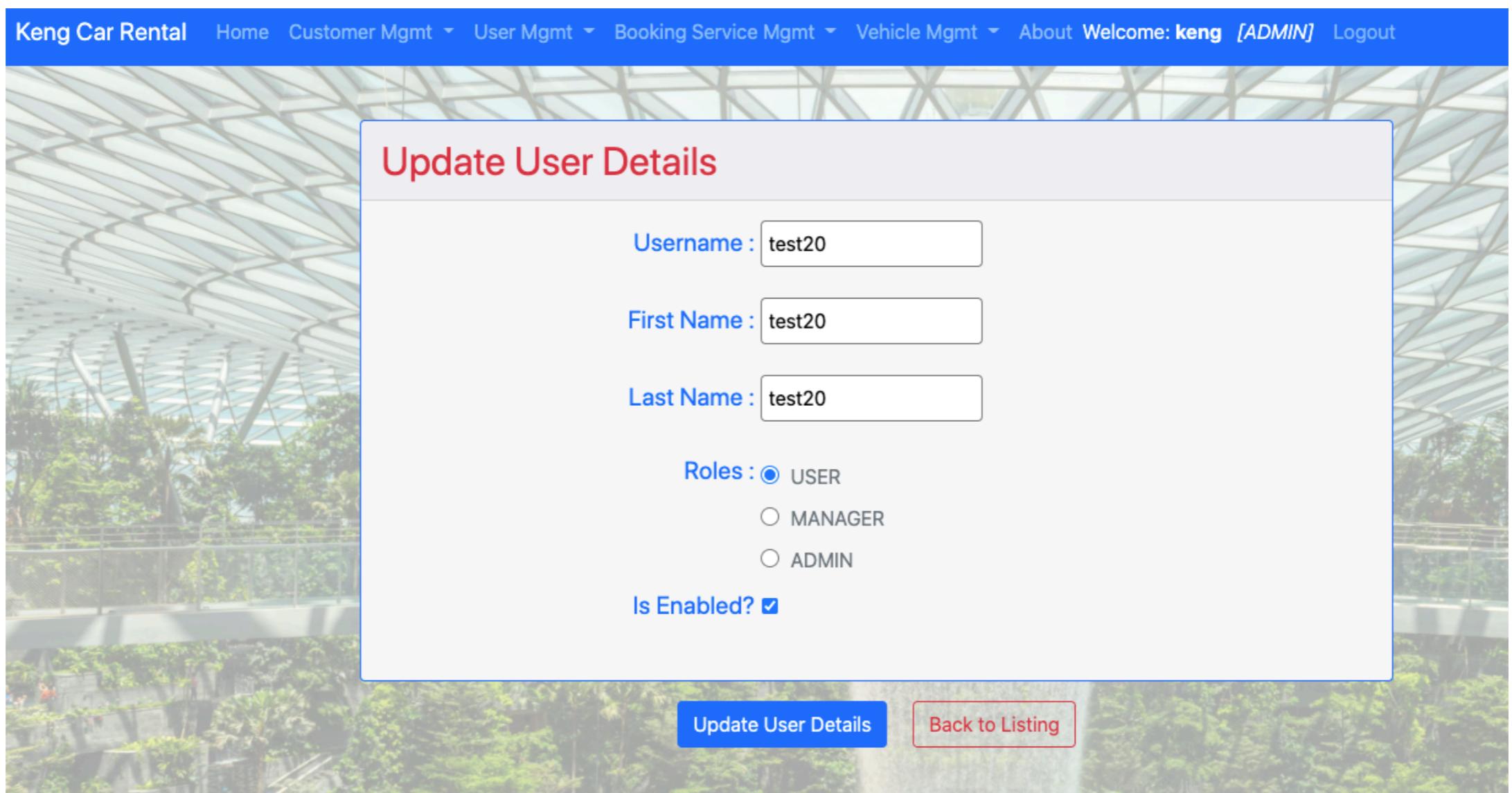
Reset Password **Back to Listing**

User Management - Update Details (‘ADMIN’)

Click on the ‘Update Details’ icon to update user’s details.

To update user’s details:

1. Click ‘Update Details’ icon
2. Update required details
3. Click ‘Update User Details’ button



Keng Car Rental Home Customer Mgmt ▾ User Mgmt ▾ Booking Service Mgmt ▾ Vehicle Mgmt ▾ About Welcome: keng [ADMIN] Logout

Update User Details

Username :

First Name :

Last Name :

Roles : USER
 MANAGER
 ADMIN

Is Enabled?

[Update User Details](#) [Back to Listing](#)