



**FACULTY OF ENGINEERING
SCHOOL OF COMPUTING
SEMESTER 1/20212022**

**SECP 3723- SYSTEM DEVELOPMENT TECHNOLOGY WBL
SECTION 01**

LECTURER:

DR. HAZA NUZLY

Name : FONG KAH KHEH

Matric no: A21EC0026

Year/ Program: 2/SECPh

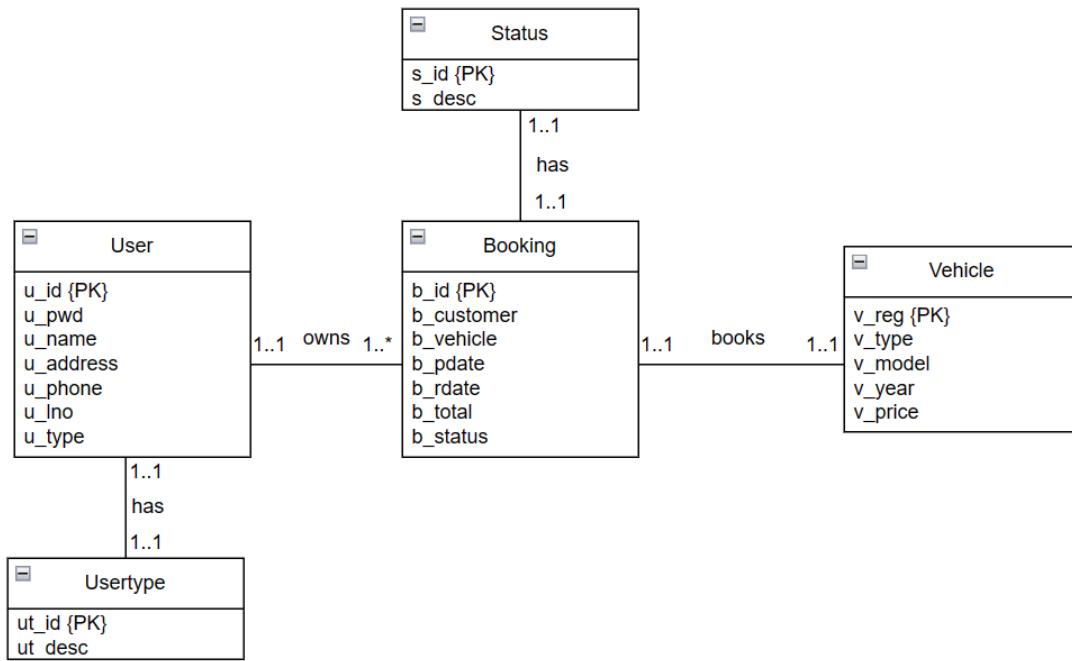
TABLE OF CONTENTS

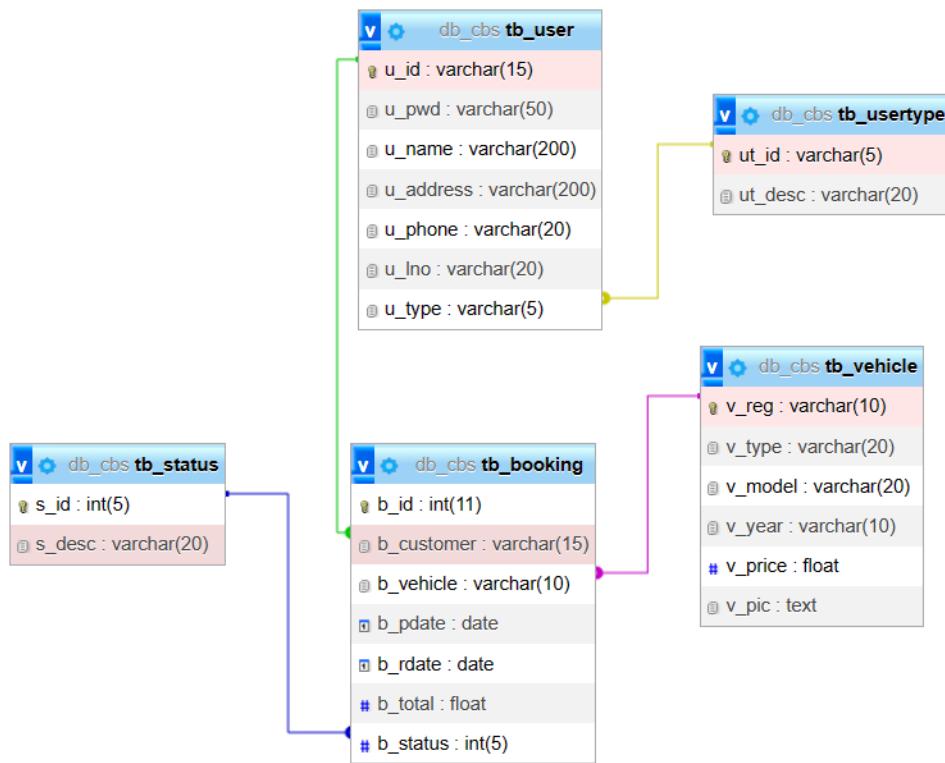
No.	Title	Pages
1	System introduction	3
2	System design - ERD - Use Case	3-4
3	Development Software, Language, Technology and Tools	5-6
4	Database design	7-8
5	Development Steps	8-9
6	System Interface for All Users	10-23
7	Localhost Setup	23-24
8	URL	25
9	User credentials	25

System Introduction

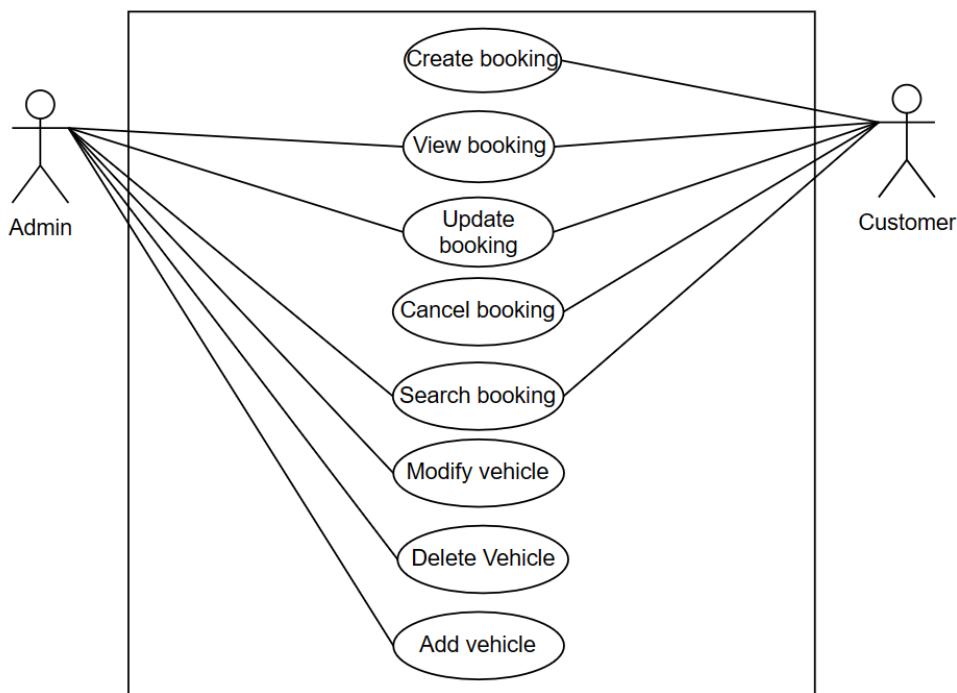
Car booking system is a system that the users can book or reserve a car. The system involves 2 users which are staff and customer. The user has to log in to book a car. The user can select vehicles that they want to book easily by using the Power car system. For bookings, the user has to provide information such as vehicles, pickup date and return date. All information about the vehicle is given, including its model and picture. The admin may add or manage vehicle brands, manage vehicles, handle reservations, and many more. Users find it simple to use and understand. Customers may rent cars easily with this website. The user won't have any trouble understanding, using, or navigating the website because it is rather straightforward.

ERD Diagram





Use Case



Development Software, Language, Technology and Tools

Below is the software used to develop Power Car System:

XAMPP

XAMPP is a platform that helps a local host to test the website before transferring it to live hosting.

Sublime

Sublime is a text editor that is used for coding in programming, markup, and writing.

000Webhost

000Webhost is the free file transfer software that is used to transfer files from the local host to live hosting.

Drawio

Drawio is software that is used to draw the entity relationship diagram(ERD) and the use case diagram for Power Car System.

Programming Languages

Below are the programming languages that are used to develop Power Car System:

HTML

HTML stands for Hyper Text Markup Language. It is the standard markup language for creating web pages.

CSS

CSS stands for Cascading Style Sheets. It describes how the HTML elements are to be presented in the media.

JAVASCRIPT

JavaScript is a text-based programming language which is used to create interactive web pages.

PHP

PHP is a Hypertext Preprocessor and server scripting language. It is used to develop static or dynamic web pages.

BOOTSTRAP

Bootstrap is the most popular HTML, CSS and JavaScript framework to design or customize responsive web pages.

SQL

SQL stands for Structured Query Language. It allows the communication and manipulation of databases. We are using phpMyAdmin in our system.

Theme

Below is the theme that is used to design the Power Car System:

[Bootswatch: Lux](#)

Database design

tb_user

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	u_id 	varchar(15)	utf8mb4_general_ci		No	None		 Change	 Drop More
<input type="checkbox"/>	2	u_pwd	varchar(50)	utf8mb4_general_ci		No	None		 Change	 Drop More
<input type="checkbox"/>	3	u_name	varchar(200)	utf8mb4_general_ci		No	None		 Change	 Drop More
<input type="checkbox"/>	4	u_address	varchar(200)	utf8mb4_general_ci		Yes	NULL		 Change	 Drop More
<input type="checkbox"/>	5	u_phone	varchar(20)	utf8mb4_general_ci		No	None		 Change	 Drop More
<input type="checkbox"/>	6	u_lno	varchar(20)	utf8mb4_general_ci		No	None		 Change	 Drop More
<input type="checkbox"/>	7	u_type 	varchar(5)	utf8mb4_general_ci		No	None		 Change	 Drop More

tb_usertype

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	ut_id 	varchar(5)	utf8mb4_general_ci		No	None		 Change	 Drop More
<input type="checkbox"/>	2	ut_desc	varchar(20)	utf8mb4_general_ci		No	None		 Change	 Drop More

tb_booking

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	b_id 	int(11)			No	None	AUTO_INCREMENT	 Change	 Drop More
<input type="checkbox"/>	2	b_customer 	varchar(15)	utf8mb4_general_ci		No	None		 Change	 Drop More
<input type="checkbox"/>	3	b_vehicle 	varchar(10)	utf8mb4_general_ci		No	None		 Change	 Drop More
<input type="checkbox"/>	4	b_pdate	date			No	None		 Change	 Drop More
<input type="checkbox"/>	5	b_rdate	date			No	None		 Change	 Drop More
<input type="checkbox"/>	6	b_total	float			No	None		 Change	 Drop More
<input type="checkbox"/>	7	b_status 	int(5)			No	None		 Change	 Drop More

tb_status

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	s_id 	int(5)			No	None		 Change	 Drop More
<input type="checkbox"/>	2	s_desc	varchar(20)	utf8mb4_general_ci		No	None		 Change	 Drop More

tb_vehicle

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	v_reg 	varchar(10)	utf8mb4_general_ci		No	None		 Change	 Drop More
<input type="checkbox"/>	2	v_type	varchar(20)	utf8mb4_general_ci		No	None		 Change	 Drop More
<input type="checkbox"/>	3	v_model	varchar(20)	utf8mb4_general_ci		No	None		 Change	 Drop More
<input type="checkbox"/>	4	v_year	varchar(10)	utf8mb4_general_ci		Yes	NULL		 Change	 Drop More
<input type="checkbox"/>	5	v_price	float			No	None		 Change	 Drop More
<input type="checkbox"/>	6	v_pic	text	utf8mb4_general_ci		No	None		 Change	 Drop More

Development Steps

SDLC (system development life cycle) has 7 phases starting with identifying problems, opportunities and objectives, determining the client's requirements, analysing system needs, designing the recommended system, developing and documenting software, testing and maintaining the system and lastly implementing and evaluating the system.

For identifying problems, opportunities and objectives, We had an insight into how the current system flow was through the class with Dr Haza Nuzly. For determining human information requirements, we know more deeper about the detail of the system by searching and referring some car booking system from some websites. We had also collected the forms and templates which are being used by our client at the current system.

After understanding the system requirements, we proceed to phase 3, analysing system needs. During this phase, we now got the idea of the system flow. We have prepared our proposal for the system and created data flow diagrams.

Next, we move forward to phase 4, designing the recommended system. During this phase, we came up with the wireframe design, the user interface (UI) design, the user experience (UX) design and also the normalised database design. We collaborate with each other via the Drawio software. Throughout the design process, we had also fixed some minor mistakes we had made during the first 3 phases. At the end of this phase, we are able to see the frame of the actual system we will be coding soon.

After we had finalised all the designs, we began with phase 5, developing and documenting software. We first develop the system according to the modules distributed to us at localhost. After we had tested at our localhost for respective modules and no errors were found, we then uploaded our codes to the hosting server (000webhost.my). Then, we fixed some minor bugs found during the upload process. We had also written a user manual for our client as reference. For testing and maintaining the system. We had tested our live system and solved the minor bugs found.

System interface for all users

Landing page

The landing page features a dark blue header with a logo and navigation links (HOME, REGISTER, LOGIN). Below the header is a large image of a blue car under a cloudy sky. Overlaid on the image is the text "FAST & EASY WAY TO RENT A CAR". Below this, a quote reads: "A small river named Duden flows by their place and supplies it with the necessary regelialia. It is a paradisematic country, in which roasted parts of sentences fly into your mouth." At the bottom of the page is a dark blue footer bar with the text "Copyright @2020 by KK Sdn.Bhd".

About us

WELCOME TO CARBOOK

A small river named Duden flows by their place and supplies it with the necessary regelialia. It is a paradisematic country, in which roasted parts of sentences fly into your mouth.

On her way she met a copy. The copy warned the Little Blind Text, that where it came from it would have been rewritten a thousand times and everything that was left from its origin would be the word "and" and the Little Blind Text should turn around and return to its own, safe country. A small river named Duden flows by their place and supplies it with the necessary regelialia. It is a paradisematic country, in which roasted parts of sentences fly into your mouth.

Copyright @2020 by KK Sdn.Bhd

Sign up page



HOME REGISTER LOGIN

Register Account

IC Number

Enter identification card number

Create Password

Please create a strong password

Full Name

Enter your full name

Address

Enter your complete address

Copyright @2020 by KK Sdn.Bhd

Enter your full name

Address

Enter your complete address

Contact Number

Enter your mobile number

License Number

Enter your valid license number

REGISTER

CLEAR FORM

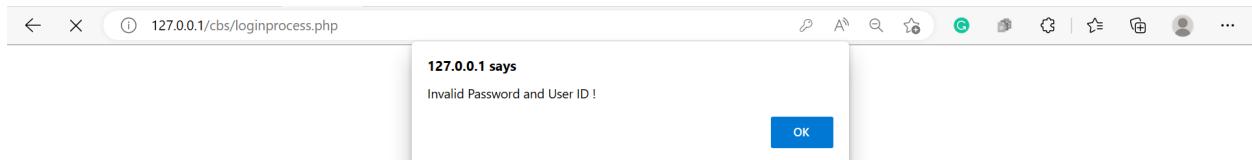
Copyright @2020 by KK Sdn.Bhd

Log in Page

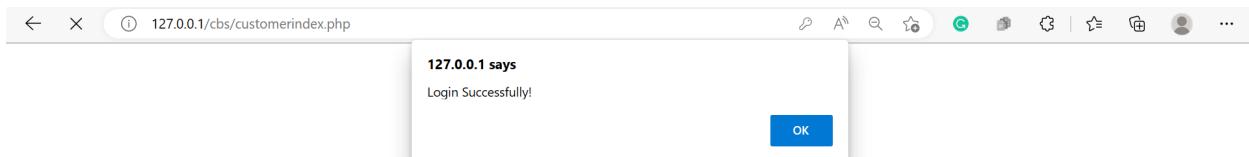


The screenshot shows a dark blue header bar with a white logo consisting of two stylized letters 'K' on the left. To the right of the logo are three white links: 'HOME', 'REGISTER', and 'LOGIN'. Below the header is a white login form. The first field is labeled 'IC Number' with a placeholder 'Please enter your identification number'. The second field is labeled 'Password' with a placeholder 'Please enter your password'. Below these fields is a black rectangular button with the word 'LOGIN' in white capital letters. At the bottom of the form, there is a link 'Don't have an account? [Create One](#)'. At the very bottom of the page, a dark blue footer bar contains the text 'Copyright @2020 by KK Sdn.Bhd'.

Login Failed



Login Successfully notification



Admin

Dashboard (Inventory and booking information)

The dashboard features a dark blue header with the logo 'KK' on the left and navigation links: 'BOOKING MANAGE', 'VEHICLE MANAGE', and 'LOGOUT' on the right.

INVENTORY

TOTAL CUSTOMER : 9
TOTAL VEHICLE : 6
TOTAL BOOKING : 7

BOOKING INFORMATION

BOOKING ID	VEHICLE	CUSTOMER	CONTACT	PICKUP DATE	RETURN DATE	TOTAL	STATUS
23	Toyota Vellfire	aaaa	aaaa	2023-02-15	2023-02-19	1600	Received

Copyright @2020 by KK Sdn.Bhd

Booking Manage (Booking Approval)

The screenshot shows a web-based application for managing bookings. At the top, there is a dark blue header bar with the logo 'KK' on the left, and 'BOOKING MANAGE ▾', 'VEHICLE MANAGE', and 'LOGOUT' on the right. Below the header is a section titled 'BOOKING LIST' with a search bar containing 'Search booking'. A table lists four booking entries:

BOOKING ID	CUSTOMER NAME	VEHICLE	PICK-UP DATE	RETURN DATE	TOTAL PRICE	STATUS	OPERATION
23	aaaa	Toyota Vellfire	2023-02-15	2023-02-19	1600	Received	<button>APPROVAL</button>
24	Lee Tim	Perodua Alza	2023-02-03	2023-02-05	440	Received	<button>APPROVAL</button>
26	JooJoo	Proton X70 MC2	2023-02-28	2023-03-03	990	Received	<button>APPROVAL</button>
27	tutakamon	Proton X70 MC2	2023-02-27	2023-03-03	1320	Received	<button>APPROVAL</button>

At the bottom of the page, there is a copyright notice: 'Copyright @2020 by KK Sdn.Bhd'.

Search Booking (Booking Approval)

The screenshot shows a search results page for bookings. The layout is similar to the previous page, with a dark blue header bar, 'BOOKING MANAGE ▾', 'VEHICLE MANAGE', and 'LOGOUT' in the top right. Below the header is a section titled 'BOOKING LIST' with a search bar containing 'Q 26'. A table lists one booking entry:

BOOKING ID	CUSTOMER NAME	VEHICLE	PICK-UP DATE	RETURN DATE	TOTAL PRICE	STATUS	OPERATION
26	JooJoo	Proton X70 MC2	2023-02-28	2023-03-03	990	Received	<button>APPROVAL</button>

At the bottom of the page, there is a copyright notice: 'Copyright @2020 by KK Sdn.Bhd'.

Approval Page (After clicking APPROVAL)



BOOKING DETAILS

Booking ID	26
Customer Name	JooJoo
Customer Contact	018683265
Customer Address	Sungai Petani, Kedah
Vehicle	Proton X70 MC2
Pickup Date	2023-02-28

Copyright @2020 by KK Sdn.Bhd

Customer Contact	018683265
Customer Address	Sungai Petani, Kedah
Vehicle	Proton X70 MC2
Pickup Date	2023-02-28
Return Date	2023-03-03
Total Price	990
Approval	Received

PROCESS

Copyright @2020 by KK Sdn.Bhd

After clicking the PROCESS button to change the status from Received to Approved for booking ID 26

26	JooJoo	Proton X70 MC2	2023-02-28	2023-03-03	990	Approved	CHANGE
----	--------	----------------	------------	------------	-----	----------	--------

Change Approval Status Page

BOOKING ID	CUSTOMER NAME	VEHICLE	PICK-UP DATE	RETURN DATE	TOTAL PRICE	STATUS	OPERATION
22	aaaa	Honda City	2023-02-03	2023-02-07	600	Approved	CHANGE
25	Lee Tim	Toyota Vellfire	2023-02-24	2023-02-26	800	Rejected	CHANGE
26	JooJoo	Proton X70 MC2	2023-02-28	2023-03-03	990	Approved	CHANGE
31	tutakamon	Honda City	2023-02-05	2023-02-08	450	Approved	CHANGE

Copyright @2020 by KK Sdn.Bhd

After clicking the CHANGE button

BOOKING DETAILS	
Booking ID	26
Customer Name	JooJoo
Customer Contact	018683265
Customer Address	Sungai Petani, Kedah
Vehicle	Proton X70 MC2
Pickup Date	2023-02-28

Copyright @2020 by KK Sdn.Bhd

Customer Address	Sungai Petani, Kedah
Vehicle	Proton X70 MC2
Pickup Date	2023-02-28
Return Date	2023-03-03
Total Price	990
Approval	Received

PROCESS

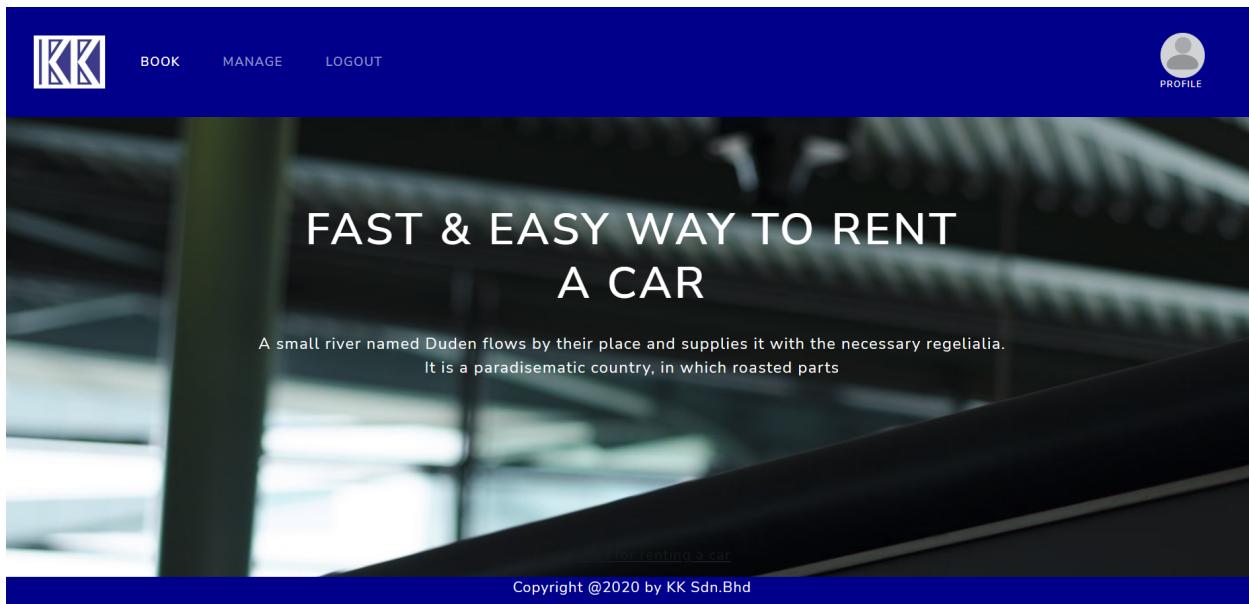
Copyright @2020 by KK Sdn.Bhd

After clicking the PROCESS button to change the status for booking ID from Approve to Rejected

26	JooJoo	Proton X70 MC2	2023-02-28	2023-03-03	990	Rejected	CHANGE
----	--------	----------------	------------	------------	-----	----------	--------

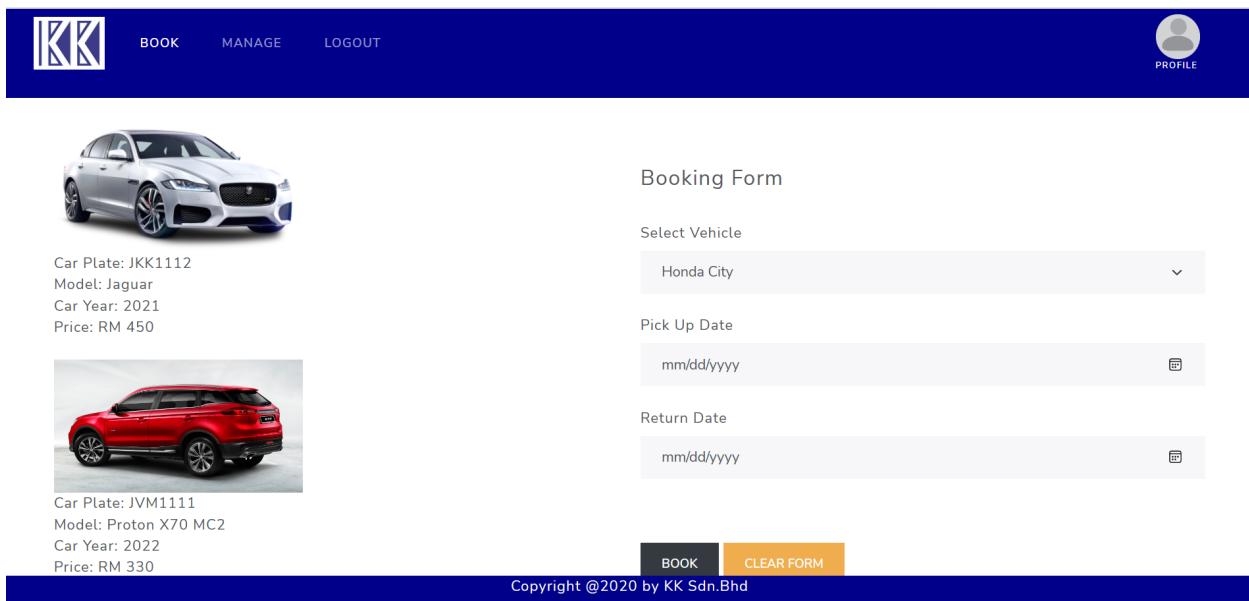
Customers

Home Page



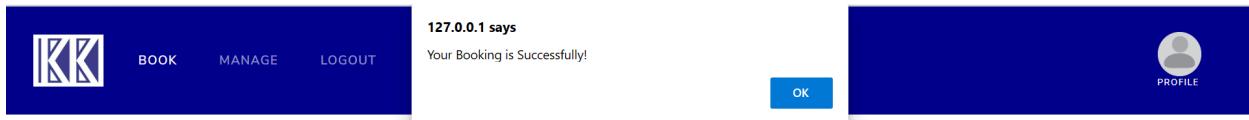
The screenshot shows the homepage of a car rental website. At the top, there is a dark blue header bar with the logo 'KK' on the left, and 'BOOK', 'MANAGE', and 'LOGOUT' buttons. On the right is a user profile icon with the word 'PROFILE' below it. The main background is a blurred image of a car interior. In the center, the text 'FAST & EASY WAY TO RENT A CAR' is displayed in large, bold, white letters. Below this, a smaller text block reads: 'A small river named Duden flows by their place and supplies it with the necessary regelialia. It is a paradisematic country, in which roasted parts'. At the bottom of the page, a dark blue footer bar contains the text 'Copyright @2020 by KK Sdn.Bhd'.

Booking Page



The screenshot shows the booking page of the website. The top navigation bar is identical to the home page. The main content area features two car options. On the left, there is a silver Jaguar car with the following details: Car Plate: JKK1112, Model: Jaguar, Car Year: 2021, Price: RM 450. On the right, there is a red Proton X70 MC2 with the following details: Car Plate: JVM1111, Model: Proton X70 MC2, Car Year: 2022, Price: RM 330. To the right of the cars is a 'Booking Form' section with fields for 'Select Vehicle' (set to 'Honda City'), 'Pick Up Date' (a date input field), and 'Return Date' (another date input field). At the bottom of the form are 'BOOK' and 'CLEAR FORM' buttons. The bottom of the page has a dark blue footer bar with the text 'Copyright @2020 by KK Sdn.Bhd'.

**After selecting the car, pickup date and return date, user clicks the BOOK button
The Successfully booking notification pops out**



SEE YOUR BOOKING

YOUR BOOKING

Copyright @2020 by KK Sdn.Bhd

Manage Booking List

A screenshot of a web application titled 'YOUR BOOKING LIST'. The page features a search bar labeled 'Search booking'. Below it is a table with columns: BOOKING ID, VEHICLE, PICK-UP DATE, RETURN DATE, TOTAL PRICE, STATUS, and OPERATION. The table contains four rows of booking data. Each row includes 'MODIFY' and 'CANCEL' buttons in the 'OPERATION' column. The bottom of the page has a dark footer bar with the text 'Copyright @2020 by KK Sdn.Bhd'.

BOOKING ID	VEHICLE	PICK-UP DATE	RETURN DATE	TOTAL PRICE	STATUS	OPERATION
22	Honda City	2023-02-03	2023-02-07	600	Approved	<button>MODIFY</button> <button>CANCEL</button>
23	Toyota Vellfire	2023-02-15	2023-02-19	1600	Received	<button>MODIFY</button> <button>CANCEL</button>
35	Porsche	2023-02-03	2023-02-04	850	Received	<button>MODIFY</button> <button>CANCEL</button>
36	Jaguar	2023-02-03	2023-02-04	450	Received	<button>MODIFY</button> <button>CANCEL</button>

After clicking the Cancel button, the notification pops out

The screenshot shows a web application interface for managing bookings. At the top, there is a navigation bar with a logo, 'BOOK', 'MANAGE', and 'LOGOUT' buttons. A user profile icon and 'PROFILE' text are also present. A modal dialog box is centered on the screen, displaying the message '127.0.0.1 says' followed by 'Are you sure to cancel this booking?'. It contains two buttons: 'OK' (blue) and 'Cancel' (gray). Below the modal, the main content area is titled 'YOUR BOOKING LIST' and features a search bar with placeholder text 'Search booking'. A table lists three booking entries:

BOOKING ID	VEHICLE	PICK-UP DATE	RETURN DATE	TOTAL PRICE	STATUS	OPERATION
22	Honda City	2023-02-03	2023-02-07	600	Approved	<button>MODIFY</button> <button>CANCEL</button>
23	Toyota Vellfire	2023-02-15	2023-02-19	1600	Received	<button>MODIFY</button> <button>CANCEL</button>
32	Porsche	2023-02-03	2023-02-04	850	Received	<button>MODIFY</button> <button>CANCEL</button>

At the bottom of the page, a copyright notice 'Copyright @2020 by KK Sdn.Bhd' is visible.

Modify booking Page (After clicking the MODIFY button)

The screenshot shows a 'Modify Form' page. On the left, there is a section for a white Jaguar car with details: Car Plate: JKK1112, Model: Jaguar, Car Year: 2021, Price: RM 450. Below it is another car image for a red Proton X70 MC2 with details: Car Plate: JVM1111, Model: Proton X70 MC2, Car Year: 2022, Price: RM 330. The right side of the page contains the 'Modify Form' fields:

Booking ID: 22

Select Vehicle: Honda City

Pick Up Date: 02/03/2023

Return Date: 02/07/2023

At the bottom, there are two buttons: 'MODIFY' (dark gray) and 'CLEAR FORM' (orange).

At the very bottom, a copyright notice 'Copyright @2020 by KK Sdn.Bhd' is visible.

If the return date set before pickup date



Return date can not set before the pickup date

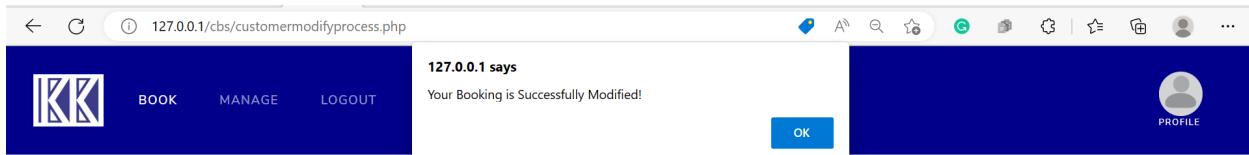
BACK



PROFILE

Copyright @2020 by KK Sdn.Bhd

After successfully modifying the booking



SEE YOUR BOOKING

YOUR BOOKING

Copyright @2020 by KK Sdn.Bhd

Search booking page

The screenshot shows a dark blue header with a logo 'KK' on the left, and navigation links 'BOOK', 'MANAGE', and 'LOGOUT' in white. On the right is a user icon with the word 'PROFILE' below it. The main content area has a title 'YOUR BOOKING LIST' and a search bar containing 'Q 35'. A table follows with columns: BOOKING ID, VEHICLE, PICK-UP DATE, RETURN DATE, TOTAL PRICE, STATUS, and OPERATION. One row is shown for Booking ID 35, Vehicle Porsche, Pick-up Date 2023-02-03, Return Date 2023-02-04, Total Price 850, Status Received, and Operations buttons 'MODIFY' (orange) and 'CANCEL' (red). At the bottom of the page is a dark blue footer bar with the text 'Copyright @2020 by KK Sdn.Bhd'.

User Profile Page Logo

The screenshot shows a dark blue header with a logo 'KK' on the left, and navigation links 'BOOK', 'MANAGE', and 'LOGOUT' in white. On the right is a user icon with the word 'PROFILE' below it, which is circled in green. The main content area is identical to the search booking page, showing the same table and footer. The green circle highlights the 'PROFILE' link in the header.

After clicking the User Profile Page Logo

User Profile Page

The screenshot shows a dark blue header with a logo 'KK' on the left, and navigation links 'BOOK', 'MANAGE', and 'LOGOUT' in white. On the right is a user icon with the word 'PROFILE' below it. The main content area is titled 'User Profile' and contains four form fields: 'IC Number' with value 'aaaa', 'Password' with value '***', 'Full Name' with value 'aaaa', and 'Address' with value 'jakarta'. At the bottom of the page is a dark blue footer bar with the text 'Copyright @2020 by KK Sdn.Bhd'.

User can modify the personal details

Full Name
aaaa

Address
jakarta

Contact Number
aaaa

License Number
aaaa

MODIFY
BACK

Copyright @2020 by KK Sdn.Bhd

Localhost Setup

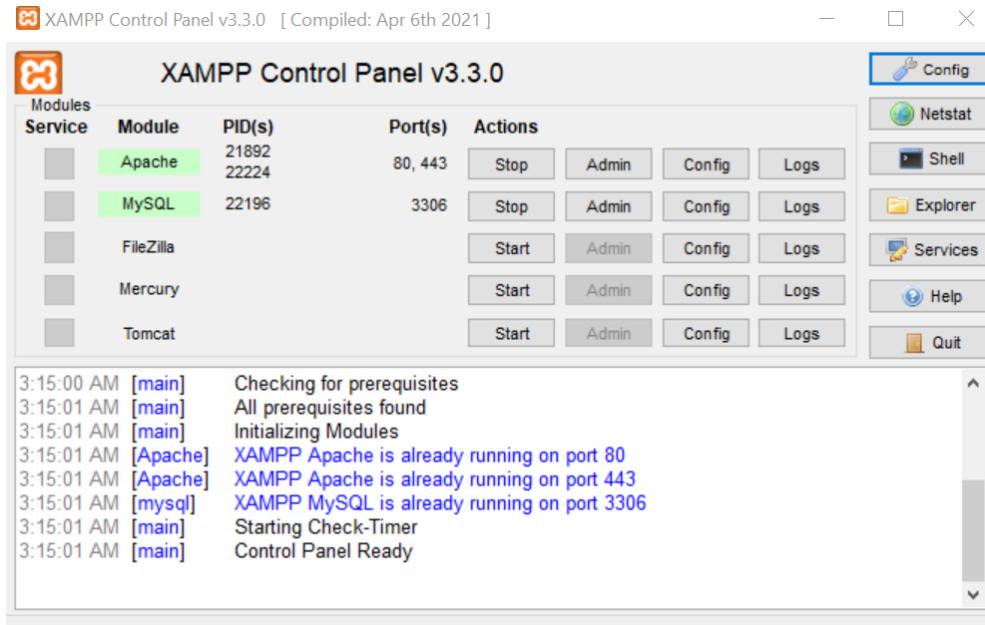
Download and install the latest version of sublime text software from the web page according to users OS (Operating System).

<https://www.sublimetext.com/3>

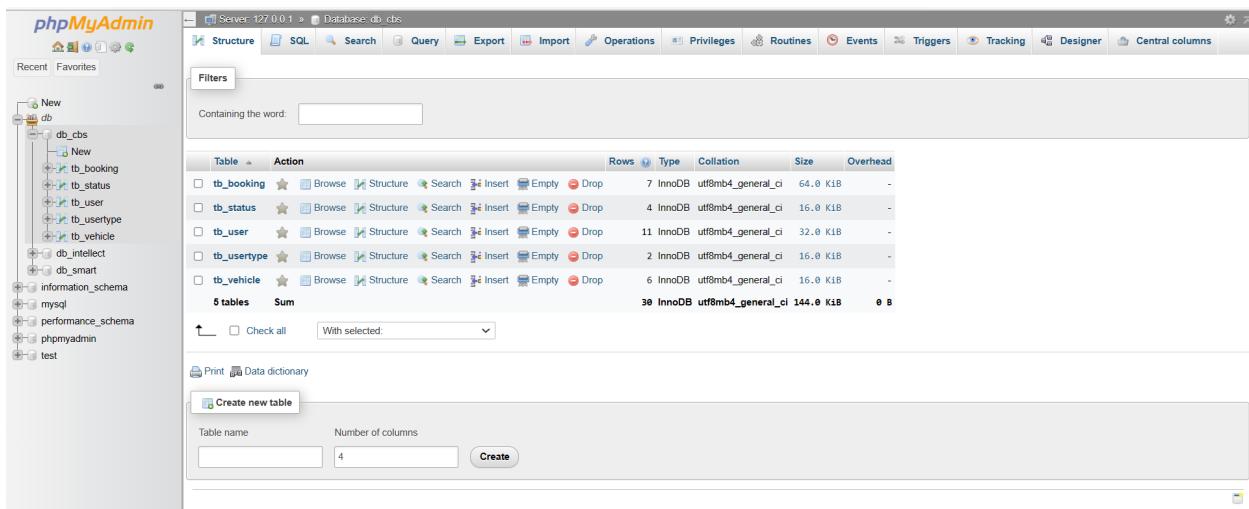
Download and install XAMPP Control Panel from web pages.

<https://www.apachefriends.org/index.html>

Open the xampp control panel, click the start button for both Apache and MySQL.



After that, click Admin button in XAMPP to open MyPHP Admin



When you enter the phpMyAdmin, first you click the new button in the phpMyAdmin.

After that create the database by typing the db_cbs name and click the button “Create” after you type the name of the database inside the column. After you click create you will see your database name on the left hand side. After that select the db_cbs and click the “Import” button from the navbar at the top .

View web pages in local host: <http://127.0.0.1/cbs/>

URL

<https://khahkhehutm.000webhostapp.com/cbs/>

User credentials

Admin

User IC Number	Password
900909099090	123456
020521040123	admin123

User

User IC Number	Password
084455667788	666666
800808080088	123456