

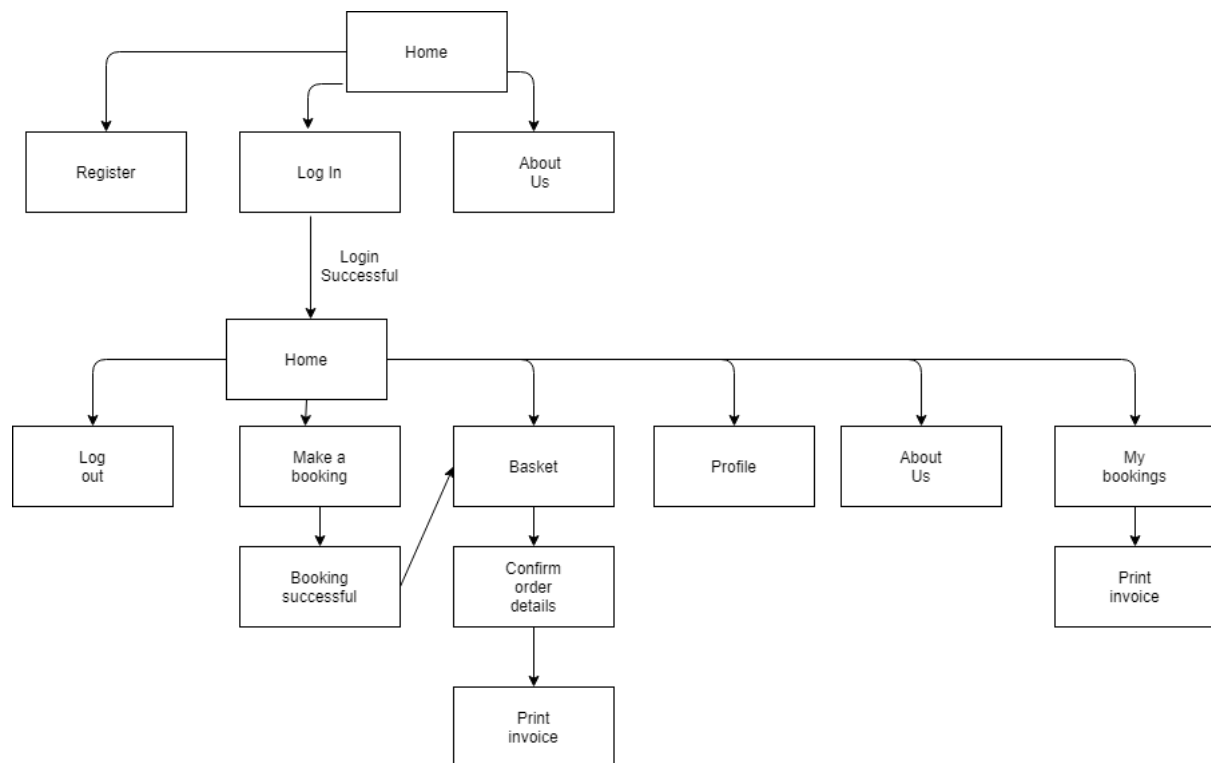
E-commerce: Publishing Websites

Learning Outcome 2 & 3 Design

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Sitemap



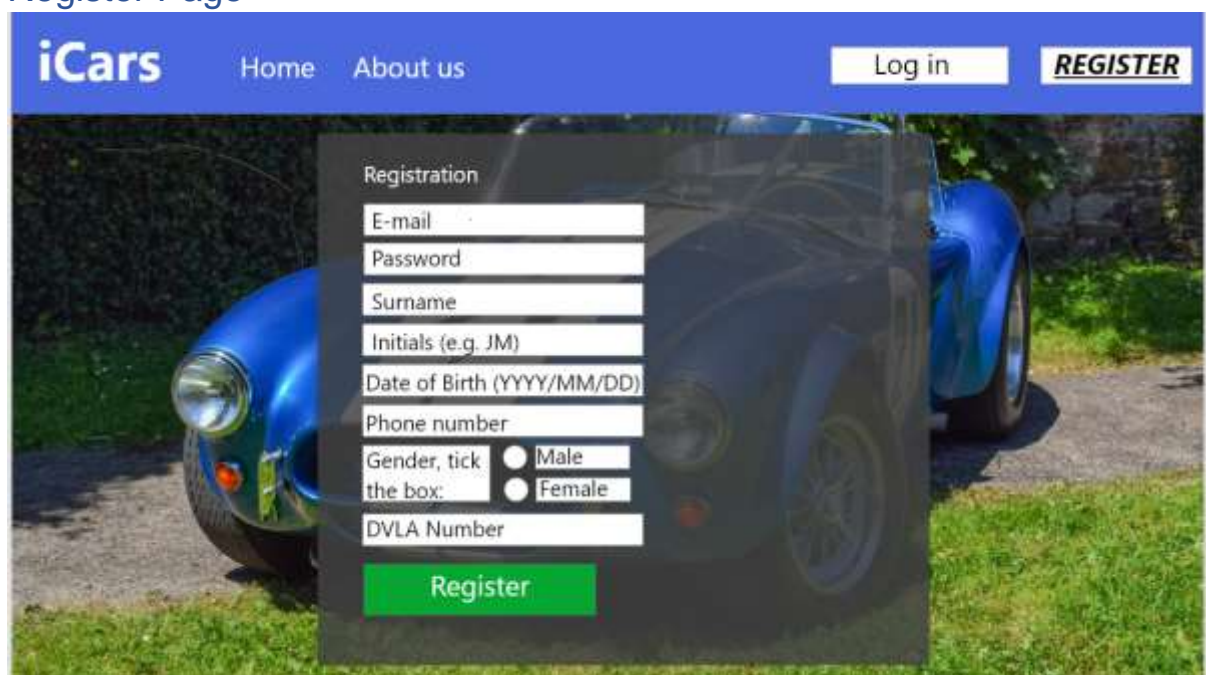
Storyboard

Homepage

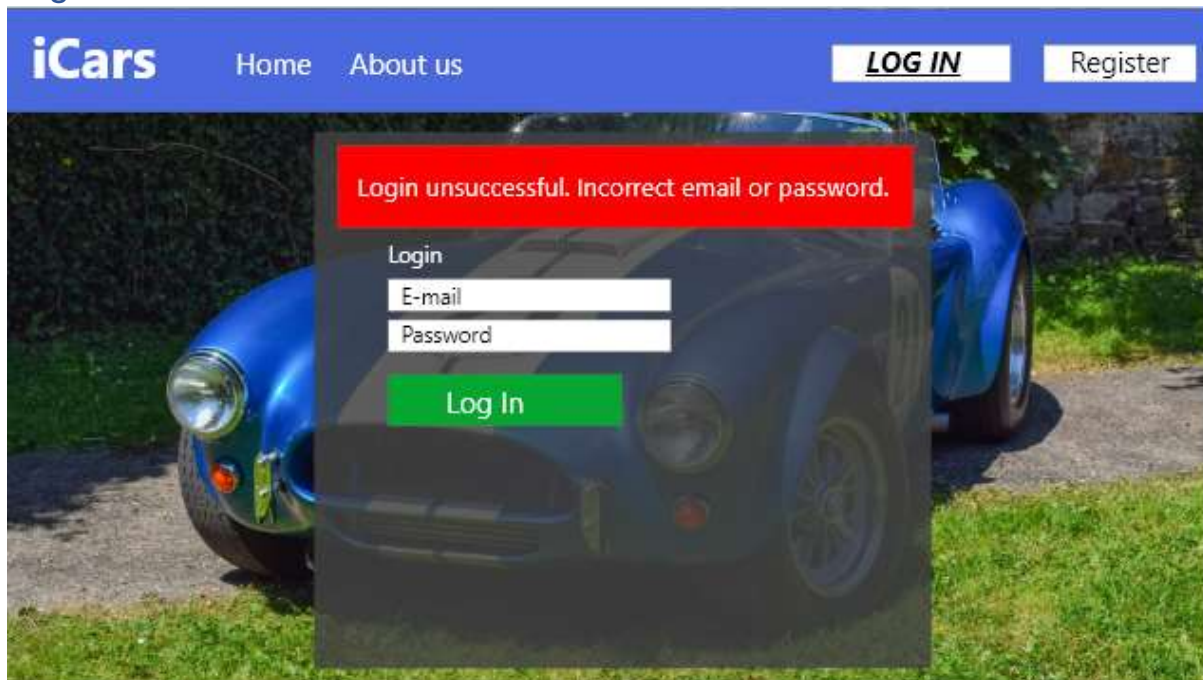
Current page shows in bold, underlined and in capitals so that the user knows.



Register Page



Login unsuccessful



The screenshot shows the iCars website's login page. A red error message at the top of the login form states: "Login unsuccessful. Incorrect email or password." Below the message is a "Login" section with input fields for "E-mail" and "Password", and a green "Log In" button. The background of the page features a blue classic car parked on a grassy area.

iCars Home About us **LOG IN** Register

Login unsuccessful. Incorrect email or password.

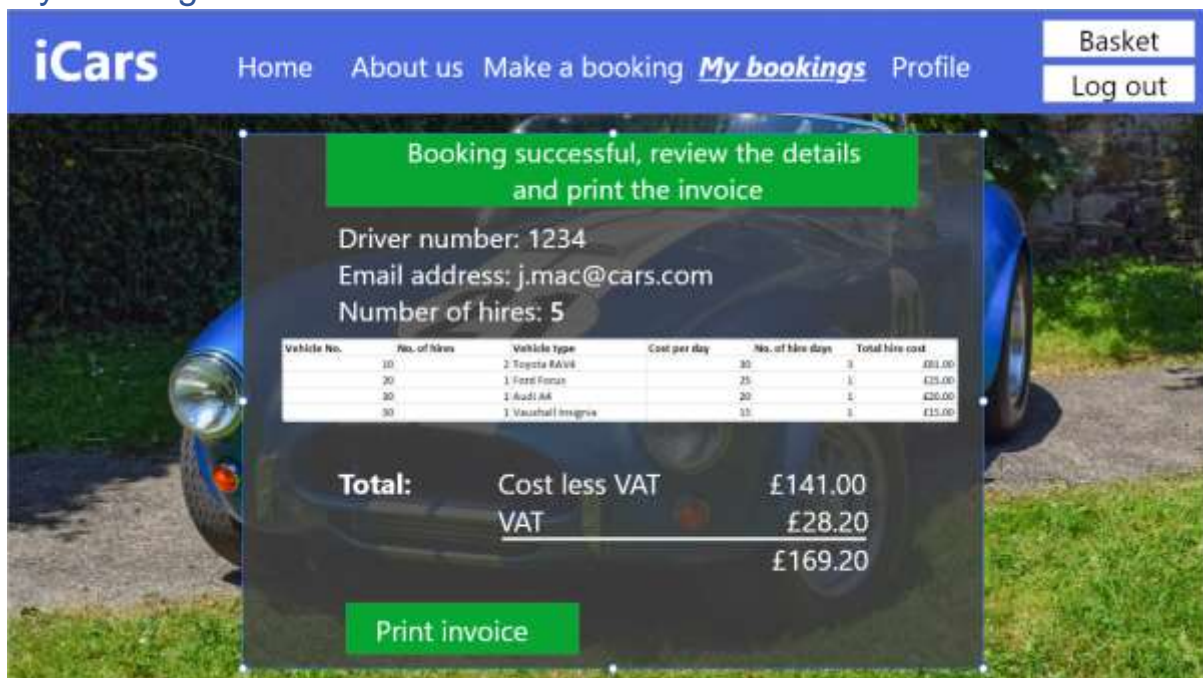
Login

E-mail

Password

Log In

My bookings



The screenshot shows the iCars website's "My bookings" page. A green success message at the top of the booking details box states: "Booking successful, review the details and print the invoice". Below this, the driver's details are listed: "Driver number: 1234", "Email address: j.mac@cars.com", and "Number of hires: 5". A table follows, showing the details of the bookings. At the bottom, a "Total" section shows the cost less VAT (£141.00), VAT (£28.20), and the total cost (£169.20). A green "Print invoice" button is at the bottom of the booking details box. The background of the page features the same blue classic car as the login page.

iCars Home About us Make a booking **My bookings** Profile Basket Log out

Booking successful, review the details and print the invoice

Driver number: 1234
Email address: j.mac@cars.com
Number of hires: 5

Vehicle No.	No. of hires	Vehicle type	Cost per day	No. of hire days	Total hire cost
10	10	2 Toyota EA/V4	30	3	£90.00
20	20	1 Ford Focus	25	1	£25.00
30	30	1 Audi A4	20	1	£20.00
40	40	1 Vauxhall Insignia	15	1	£15.00

Total: Cost less VAT £141.00
VAT £28.20
£169.20

Print invoice

Accessibility

It is important to add 'alt' attribute in html to describe images to disabled users. It can be used for background images in this case but also potential vehicle images.

It is also necessary to make the font-size reasonably large so that it is easily readable for anyone using the website.

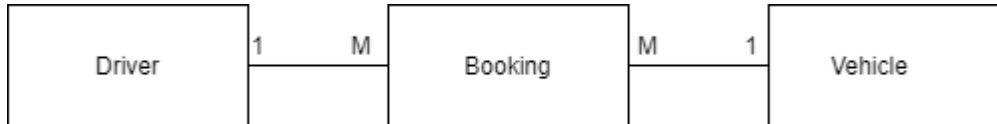
People with certain vision impairments such as glaucoma and cataract have low contrast sensitivity. (W3C, 17/03/2016). Therefore it is important to make background to font have high contrast, so they are easily distinguishable.

The website can make use of ARIA roles to identify certain objects on the webpage and make it more accessible for screen readers.

Website Database

ER Diagram

A driver can make many bookings, and many bookings can be made on the same vehicle if it is a different date.



Data Dictionary

Driver

Driver Table					
System: 20005760		Entity: Driver		Version: 1.0	Date: 28/3/2021
Description: Stores information about the driver					
Key	Attribute	Type	Size	Mandatory	Comment
PK	Driverid	INT		4 Yes, NOT NULL	Auto increment = 1000 for auto generated 4-digit id
	Email	VARCHAR		20 Yes, NOT NULL	Will be used as username
	Password	VARCHAR		8 Yes, NOT NULL	
	Surname	VARCHAR		20 Yes, NOT NULL	
	Initials	CHAR		2 No, NULL	
	DateOfBirth	DATE		YES, NOT NULL	Format YYYY/MM/DD
	PhoneNo	VARCHAR		15 No, NULL	
	Gender	CHAR		1 No, NULL	M = Male, F = female
	DvlaNo	VARCHAR		20 Yes, NOT NULL	

Booking

Booking Table					
System: 20005760		Entity: Booking		Version: 1.0	Date: 28/03/2021
Description: Stores information regarding the booking					
Key	Attribute	Type	Size	Mandatory	Comment
PK/FK	VehicleNo	INT		2 Yes, NOT NULL	Auto increment = 10 for auto generated two digit id
PK	BookingDay	DATE		Yes, NOT NULL	
PK/FK	Driverid	INT		4 Yes, NOT NULL	Auto increment = 1000 for auto generated 4-digit id
	AccountStatus	CHAR		1 No, NULL	Blank as default, I for invoice sent, P for paid

Vehicle

Vehicle Table					
System: 20005760		Entity: Vehicle		Version: 1.0	Date: 28/03/2021
Description: Stores information about the vehicle					
Key	Attribute	Type	Size	Mandatory	Comment
PK	VehicleNo	INT		2 Yes, NOT NULL	Auto increment = 10 for auto generated two digit id
	VehicleReg	CHAR		9 Yes, NOT NULL	Format = 'SY NN CCC'
	MakeModel	VARCHAR		25 Yes, NOT NULL	e.g. Toyota Rav 4
	DailyCost	INT		2 Yes, NOT NULL	Cost in £(GBP)

SQL Scripts

Table Creations:

```

DROP TABLE IF EXISTS Driver;
CREATE TABLE Driver(
    Driverid INT(4) NOT NULL AUTO_INCREMENT=1000,
    Email VARCHAR(20) NOT NULL,
    Password VARCHAR(8) NOT NULL,
    Surname VARCHAR(20) NOT NULL,
    Initials CHAR(2) NULL,
    DateOfBirth DATE NOT NULL,
    PhoneNo VARCHAR(15) NULL,
    Gender CHAR(1) NULL,
    DvlaNo VARCHAR(20) NOT NULL,
    PRIMARY KEY (Driverid)
);

DROP TABLE IF EXISTS Booking;
CREATE TABLE Booking(
    VehicleNo INT(2) NOT NULL AUTO_INCREMENT=10,
    BookingDay DATE NOT NULL,
    Driverid INT(4) NOT NULL AUTO_INCREMENT=1000,
    AccountStatus CHAR(1) NULL,
    CONSTRAINT BookingPK PRIMARY KEY (VehicleNo,BookingDay,Driverid),
    FOREIGN KEY (VehicleNo) REFERENCES Vehicle(VehicleNo),
    FOREIGN KEY (Driverid) REFERENCES Driver(Driverid)
);

DROP TABLE IF EXISTS Vehicle;
CREATE TABLE Vehicle(
    VehicleNo INT(2) NOT NULL AUTO_INCREMENT=10,
    VehicleReg CHAR(9) NOT NULL,
    MakeModel VARCHAR(25) NOT NULL,
    DailyCost INT(2) NOT NULL,
    PRIMARY KEY (VehicleNo)
);

```

Example inserts:

```

INSERT INTO Driver
VALUES (1234, 'icars@cars.com', 'Password', 'John', 'JJ', '1999/01/01', '+447575646464', 'M', 'BSEJ38224BG87');

INSERT INTO Booking
VALUES (20, '2021/03/30', 1234, 'I');

INSERT INTO Vehicle
VALUES (20, 'SS 99 GYY', 'Toyota Yaris 2012', 'John', 25);

```


Bibliography

- *Accessibility requirements for People with Low Vision*, 17/03/2016, W3C.org, available at:
<https://www.w3.org/TR/low-vision-needs/>
Date Accessed: 28/03/2021