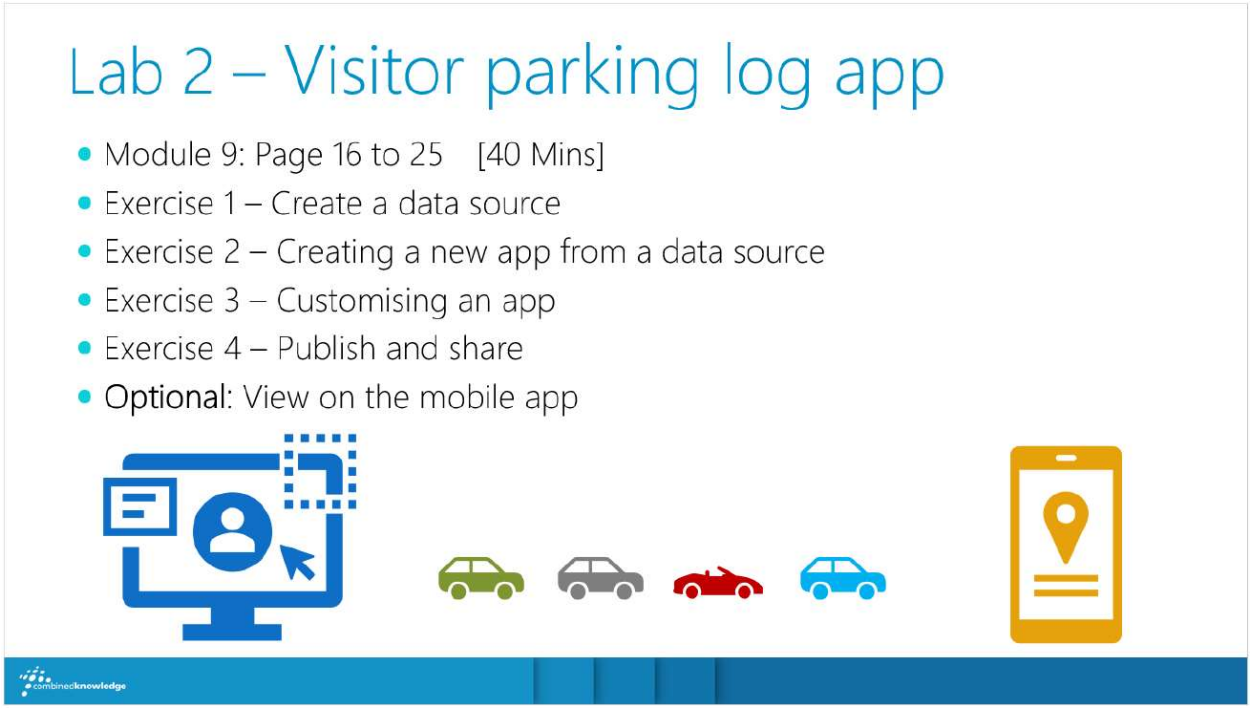


In this lab, you will create an app from a SharePoint list that can be shared with other members of your organisation. You will use an Excel spreadsheet to create a populated SharePoint list which will be our data source for the app. We will then ask SharePoint to create a Power App from our list. You may wonder why we do not just build our app from the Excel spreadsheet. There are a few reasons for this:

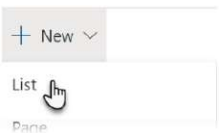
- Your app can not delegate its formulas to Excel which may cause miscalculations if there are more than 500 rows of data in the table.
- Excel files used as data sources for Power Apps must be stored in OneDrive, which is a personal storage area. The data source should really live in a collaborative area, hence the SharePoint list

We will talk about these points in more detail in a later module. Once your app has been generated from the data source, you will then make a few small changes to the app before testing, saving, and publishing your app.

Exercise 1 – Create a data source

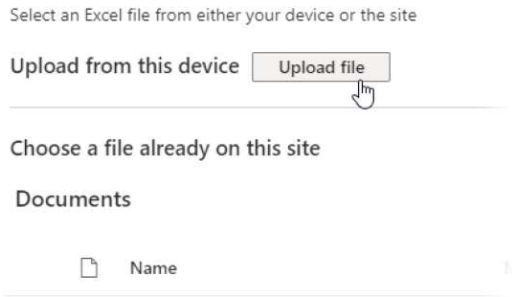
We have an Excel spreadsheet used for logging visitors' vehicles when they park on site. The process has always been to send an email to security who will add the visitor's details to the log. In this exercise we will look import the existing logbook, which is an Excel file, into a SharePoint list.

1. In the open SharePoint team site from our last exercise click on the **Settings** ⚙ cog then choose **Site contents**
2. Click on the **+ New** button
3. Click **List**

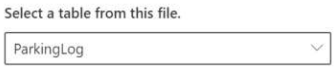


4. Choose **From Excel**

5. Click **Upload file** and navigate to **SPOnlineFiles** > **Power Apps** > **Parking App** and select the file called Visitor Parking Records, from the downloaded file pack click **Open**



6. Ensure that you have *ParkingLog* table selected



7. For the columns ensure we have the correct column type for each column, see below (you may need to scroll to the bottom of the page to scroll to the right to see the columns that are out of view)

	Column name	Column type
a.	Car registration	Title
b.	Make	Single line text
c.	Model	Single line text
d.	Date	**Date and time** (requires changing from number)
e.	Contact tel	Single line of text
f.	Contact name	Single line of text
g.	Company name	Single line of text
h.	Disabled access	Single line of text

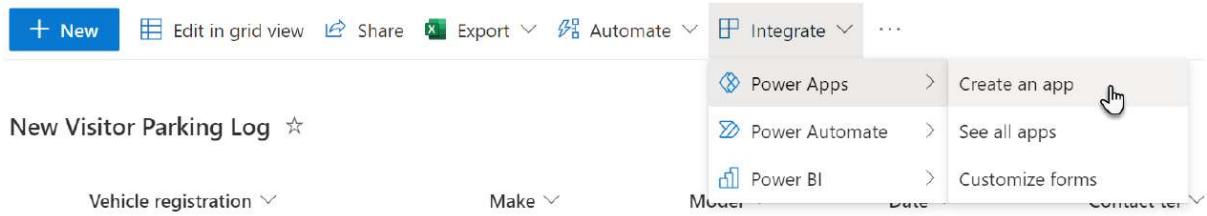
8. Click **Next**
9. Name the list **Visitor parking log**
10. Press **Create** and your list will now be created

11. From the *Visitor parking log* list click the **Settings** ⚙ cog (top-right corner)
12. Click **List settings**
13. Scroll down to the heading *Column*, click on the column named **Title**
14. Change the column name from *Title* to **Vehicle registration**
15. Scroll to the bottom and click **OK**
16. In the breadcrumb trail click on **Visitors parking log**

Exercise 2 – Creating an app from a data source

In this short exercise we are going to have Power Apps automatically generate an app from our SharePoint list.

1. From your *Vehicle parking log* list click the **Integrate** button in the list ribbon
2. Click on **Power Apps** > **Create an app**



3. In the *Create an app pane* enter the name **Visitor parking log** and then click **Create** Power Apps will now load in a new tab on your browser
4. If this is the first time you are visiting Power Apps you will be prompted by an overlay asking you to select a country/region, select your country/region and press **Get started**
5. Your app is now ready (if you received an error creating the app, start again from exercise 2 - step 1)
6. Press either **F5** on your keyboard or the **play button** in the top right corner to preview your app, click on a **>** button next to a record to view it
7. Press the **X** icon to return to the editor screen, and if shown click **Ok** on the *Did you know?* prompt

Exercise 3 – Customising an app

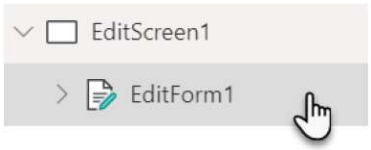
The automatically generated apps are quickly set up, but a bit rough around the edges. This exercise will cover removing parts of our app we do not need and add in parts that we do, as well and change some items to be more useful and intuitive. We will make the following changes to our generated app:

- Update form to populate today's date as the default date
- Update the gallery rows to feature the booking date
- Update the gallery rows to feature a disabled symbol if disabled access is requested

We will tackle these updates in sections to make the process easier to follow.

Updating the date

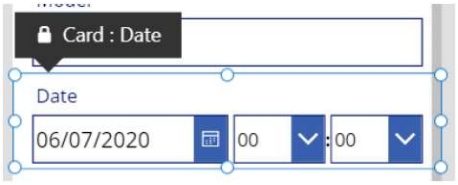
1. From the *Tree view* pane on the left, click the arrow next to **EditScreen1** then click **EditForm1**



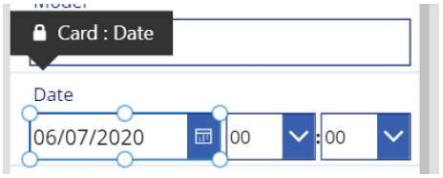
2. We want to make things a little easier for our users by prepopulating the date with the current date

3. Select the **Date** card in the current form, when you first select the *date* it will select the date picker *Card* so you will have to click on the **date picker** again

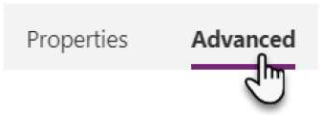
Clicking once selects the card (label and field)



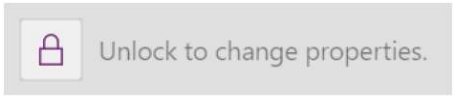
Click again to select the field only



4. The *data picker* is currently locked we need to unlock this control to make changes to it, click the **Advanced** tab in the properties pane to the right of the design screen



5. Click the **Unlock to change properties** to unlock the control

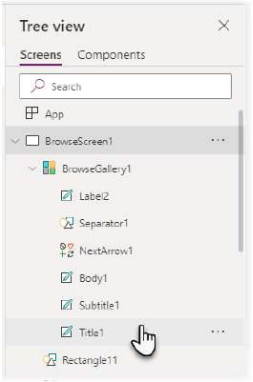


6. Under the heading *DATA* click the field *DefaultDate* field and change Parent.Default to **If(IsBlank(ThisItem.Date),Today(),ThisItem.Date)**, this will now automatically populate the date picker with the current date if the field does not already have a selected date

   The syntax works like this: If the date is blank, set as todays date, if not, use the date already applied to the record

Adding helpful information to the gallery

1. On the *Tree* view select **BrosweScreen1** then expand **BrowseGallery1** and click on **Title1**



2. From the top ribbon click the tab **Insert** and then click **Text** from the drop down menu click **Label**

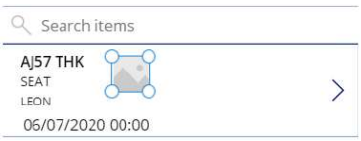
   Note: This will insert a new label on *every* item within the gallery, we only need to add it in once and each item listed in a gallery will be identical

3. The new label should already be showing the date from the *Date* column in the SharePoint list e.g. value *05/07/2020 00:00*

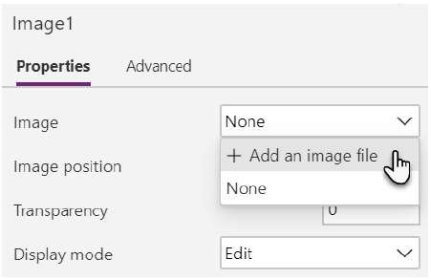
4. Select the newly created label and move and resize the label, to do this, click and hold one the grab handles either side of the label to resize the label so that we can see all information on the gallery (notice how when doing this will also resize the label in each gallery row automatically)

5. With the text field still selected within the top row click on **Insert** > **Media** > **Image** (remember you can use *Tree view* to select controls if you are having difficulty)

6. Resize the image control so that is fits in the space shown below



7. Next with the image control selected, in the *properties* pane on the right-side of the screen, select the **Properties** tab, then click on the *Image* drop-down field and select **Add an image file**



8. Using File Explorer, navigate to your download pack for this training course and in the Parking App folder locate the file named **Disabled Access Symbol** and select it, then click **Open**

9. To hide the symbol if access to the space is not required, click on the **Advanced** tab in the properties pane

10. In the search bar enter **Visible**

11. For the property *Visible* clear the default value and enter **ThisItem.'Disabled access'**

12. Because the disabled access expects a true/false value, we are warned that current text input field would be better if it supported true/false values like a toggle or check box

13. We will test new this functionality by adding some new data

Testing the updated form and gallery

1. We are now going to add in a few vehicles for today, enter the preview mode either pressing **F5** on your keyboard or pressing the **Play button** along the top of the power app ribbon

2. Press the **plus icon (+)** in the top right-hand corner of the app to add a new item

3. Complete the form adding in 3 entries using the information below:

   (we recognise that some fields like disabled access could do with some improvement so we can log this as a nice to have, and come back to it later)

Car Reg.	Make	Model	Date	Contact tel	Contact name	Company name	Disabled access
HK14 POL	HONDA	ACCORD	Today	07700 900470	Jane Harlow	Accord Autos	true
FP16 GHT	MAZDA	CX3	Today	07700 900065	Bob Hoskins	Blockbuster ltd	false
VU05 DUP	AUDI	A4	Tomorrow	07700 900196	Will Smith	Film inc.	true

4. Once you have completed each form press the **tick icon** in the top right-hand corner to save your new item

5. Check your new data in the gallery (you will need to scroll down), you should have a couple of entries with a disabled symbol present

6. Click on the **X** at the top-right of the page to close the preview (close the prompt is displayed)

Exercise 4 – Publish and share

Now that the app is in a healthy state you are ready to start using the app with other employees in your organisation. If an employee other than you looks at the Power Apps app on their mobile phone or tablet this app will not appear. Therefore, we will need to publish the app and share it.

1. Click **File** in the ribbon, then **Save**, then **Publish** this version, then **Publish this version** After a few seconds, you will see a message to confirm this was successful

   If you were to open Power Apps on your mobile device and sign in using your Microsoft 365 account, you would now see this app. The app however is still not available for anyone else to use. You will now share the app to make it available for your specific people, groups or the entire organisation to use.

   By default, other employees will be allowed to use the app to view, update, submit and delete data, they will not be allowed to view or modify the design of the app.

2. Click **Share** and another tab will open

3. In the field where you can enter a colleague's name or email, type in **Everyone** then select the result

Everyone in [Organisations name]

Note: When adding the entire organisation you will only be able to allow employees to use the app. If you want people other than you to be able to change the design of the app then you will need to add them individually

4. Click **Share**, then click on the **X** to close the share menu
5. Close the two Power App tabs in your browser, leaving the **SharePoint** tab remaining (clicking **Leave** if prompted)

Optional: Exercise 5 – View on the mobile app

In this lab, you will test your new app on your mobile device. If you do not have a mobile phone or tablet you can skip this lab. If you have already downloaded the mobile app and signed in with a different Microsoft 365 user account, you can tap the menu icon at the top left corner of the Power Apps app and tap **Sign out** at the bottom of the menu, then continue from step 7 in this exercise.

The experience of downloading a mobile app will vary slightly between devices. The example steps here are based on an iPhone but will be similar for other devices.

1. Unlock your mobile device and access the App Store
2. Search for *Power Apps*

3. Click **Get**, then click **Install**
4. Enter your touch ID or pin (for your mobile device)
5. The app will download, this might take a few seconds
6. If the Power Apps app does not load automatically, tap the **Power Apps** app
7. Enter your Microsoft 365 email address and password

   Note: Sometimes at the password page after you tap **Sign In** nothing happens, just tap **Sign in** again and then you will be taken straight into the app.