Direct Reports App Install Doc

Overview:

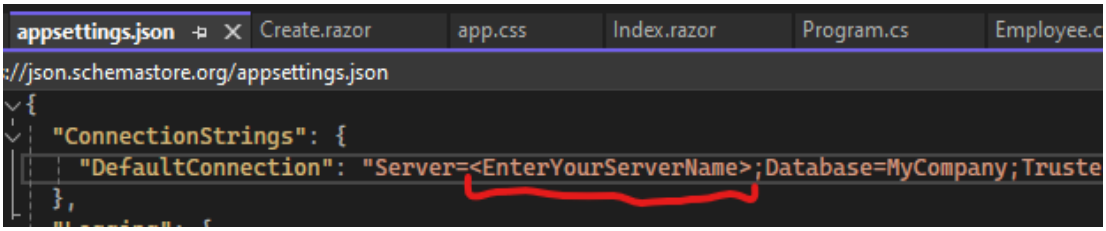
This is a Blazor application that presents a list of 100 direct reports to the new IT Director. It is supported by a database called MyCompany running locally. The list of employees is paginated and sortable by clicking on the column names for each column. In addition, the application supports simple CRUD actions if you would like to create, read, update, or delete any records.

Setup:

To run the app there are some setup steps. Please follow the below instructions to setup the application:

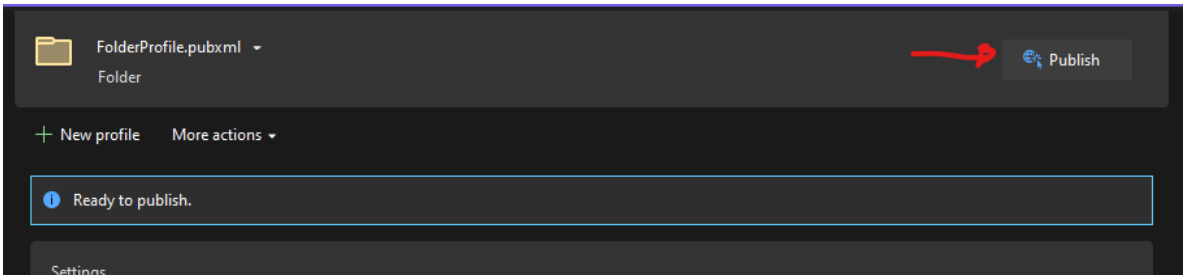
1. Setup the Database
    a. Clone the application from the repository: https://github.com/squirep/DirectReportsApp
    b. Open the folder and right click on CreateAndPopulateDatabase.sql
        i. Select 'Open with Microsoft SQL Server Management Studio' (SSMS)
        ii. You will be prompted to connect to your server
            1. Enter your credentials and connect to the server
        iii. After connecting to the server hit the F5 key on your keyboard or click the execute button in the top banner to run the script
        iv. This script will create the necessary database and table then populate them with data if they don't already exist
        v. Leave SSMS open because you will need it again later
2. Setup the Hosting Bundle
    a. This application targets .NET 8 and will need the necessary Dotnet Hosting Bundle for your IIS which you can download using this link: https://download.visualstudio.microsoft.com/download/pr/20598243-c38f-4538-b2aa-af33bc232f80/ea9b2ca232f59a6fdc84b7a31da88464/dotnet-hosting-8.0.3-win.exe
        i. Once the package has downloaded open the installer
        ii. Accept the defaults and install
        iii. Restart IIS
            1. Open the command prompt in admin mode
            2. Type **`iisreset`** and hit enter
                a. This will stop then restart your IIS instance
            3. Close the command prompt
3. Publish the application
    a. Now back in your cloned repo, double click on the DirectReportsApp.sln, this will open the solution in Visual Studio

i. Open the file appsetting.json
ii. Replace the <EnterYourServerName> tag in the “DefaultConnection” with the name of your server

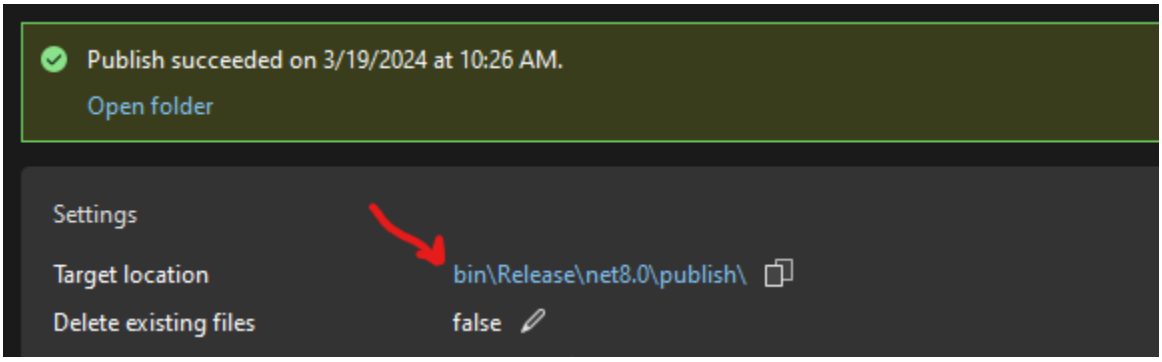


iii. Save and close the file

b. Build the solution
c. Right click on the solution in ‘Solution Explorer’ and select publish
   i. For the target select ‘Folder’
   ii. Click ‘Next’
   iii. Accept the default and click ‘Finish’
d. Once the .pubxml has been created click ‘Publish’



e. After the publish has completed navigate to the target folder by clicking the target link which will open the location folder in an Explorer window



f. Close Visual Studio

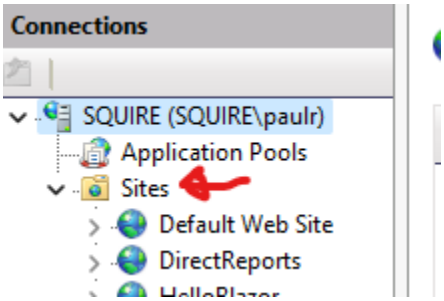
4. Host the application in IIS
   a. Back in the Explorer window, step up one folder in the directory to …\net8.0
   b. Locate and copy the ‘publish’ folder
   c. Navigate to your IIS folder
      i. Example path: C:\inetpub\wwwroot
   d. Paste the copied ‘publish’ folder
      i. If prompted for Admin permission click ‘Continue’ to give permission
   e. Rename the folder to ‘DirectReports’

i. If prompted for Admin permission click ‘Continue’ to give permission

f. Hold the Windows+r keys and type **`inetmgr`** to launch IIS Manager

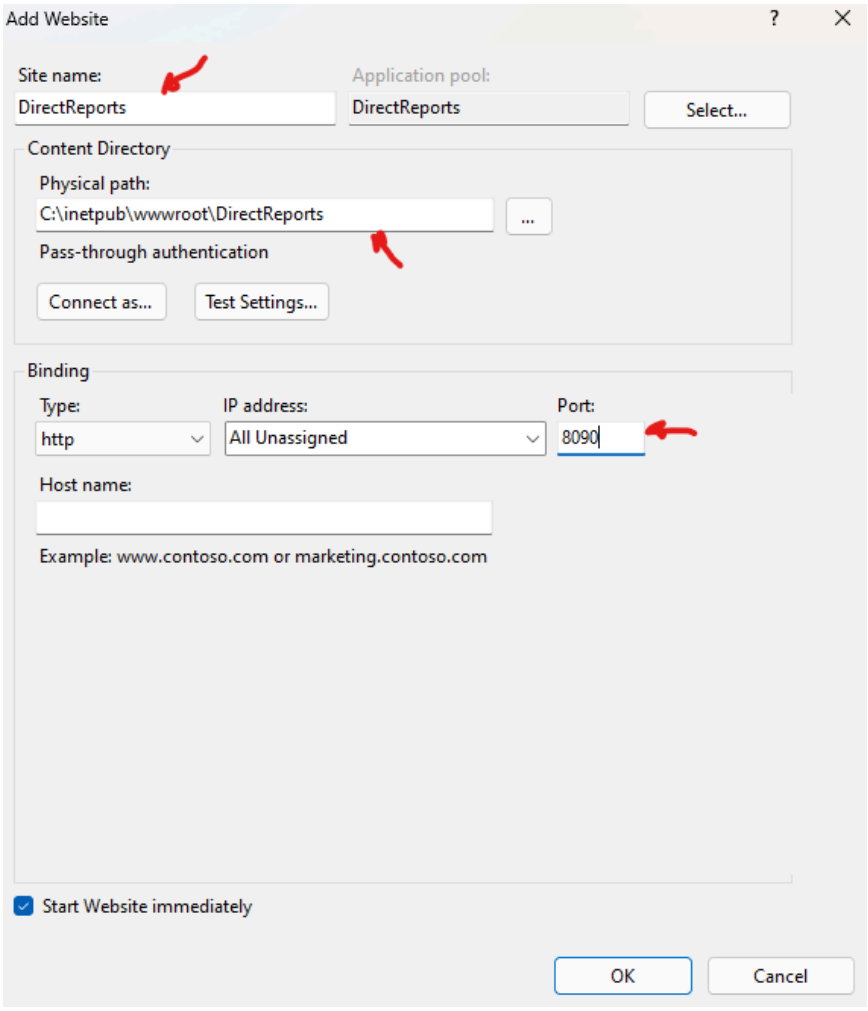
g. Expand your server

h. Right click on ‘Sites’



i. Select ‘Add Website…’

j. In the wizard provide ‘DirectReports’ for the site name, a physical path, and a port then click ‘OK’

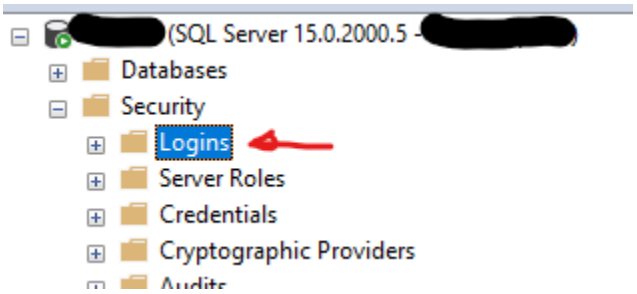


k. Close IIS Manager

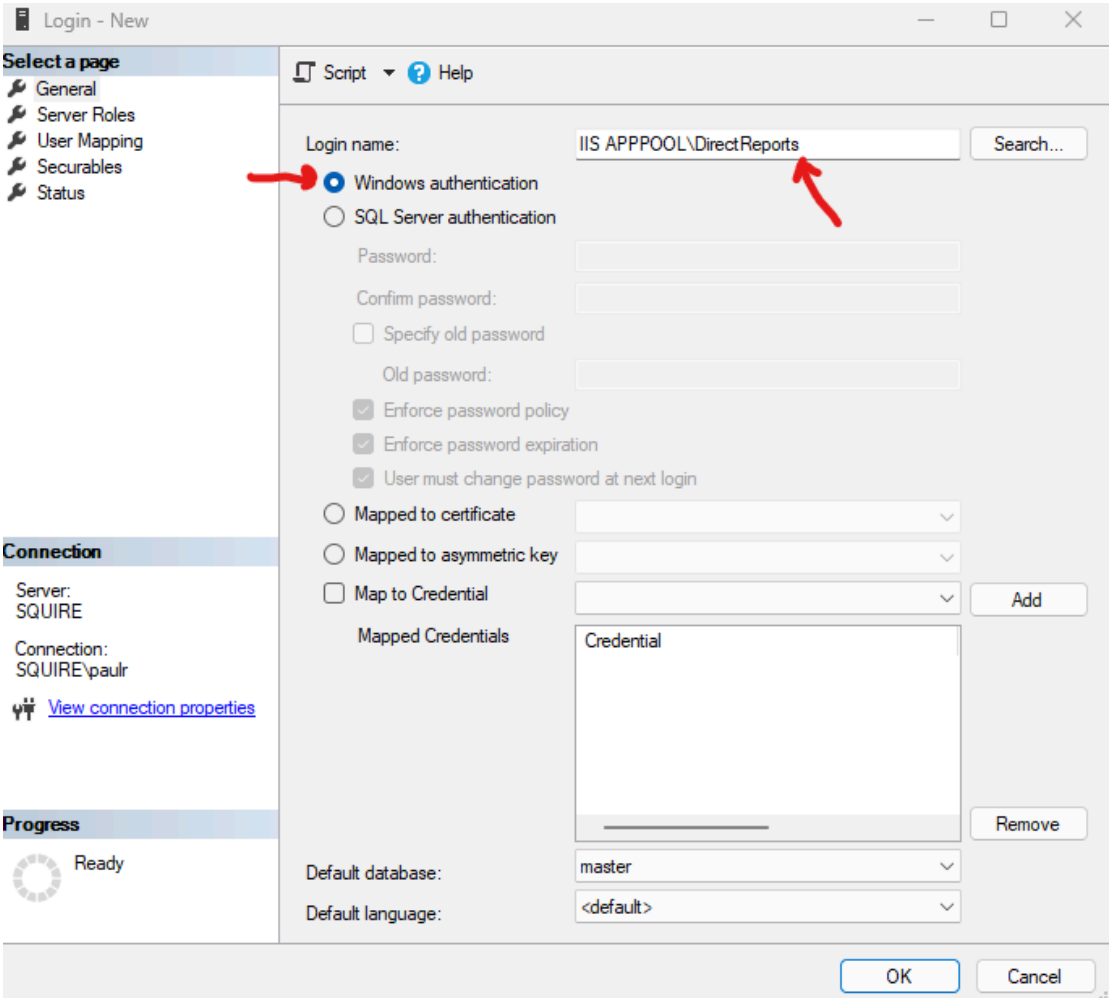
5. Give permissions for Application Pools to access the database

a. Back in SSMS, expand the ‘Security’ folder for the server

b. Right click ‘Logins’ and select ‘New Login…’

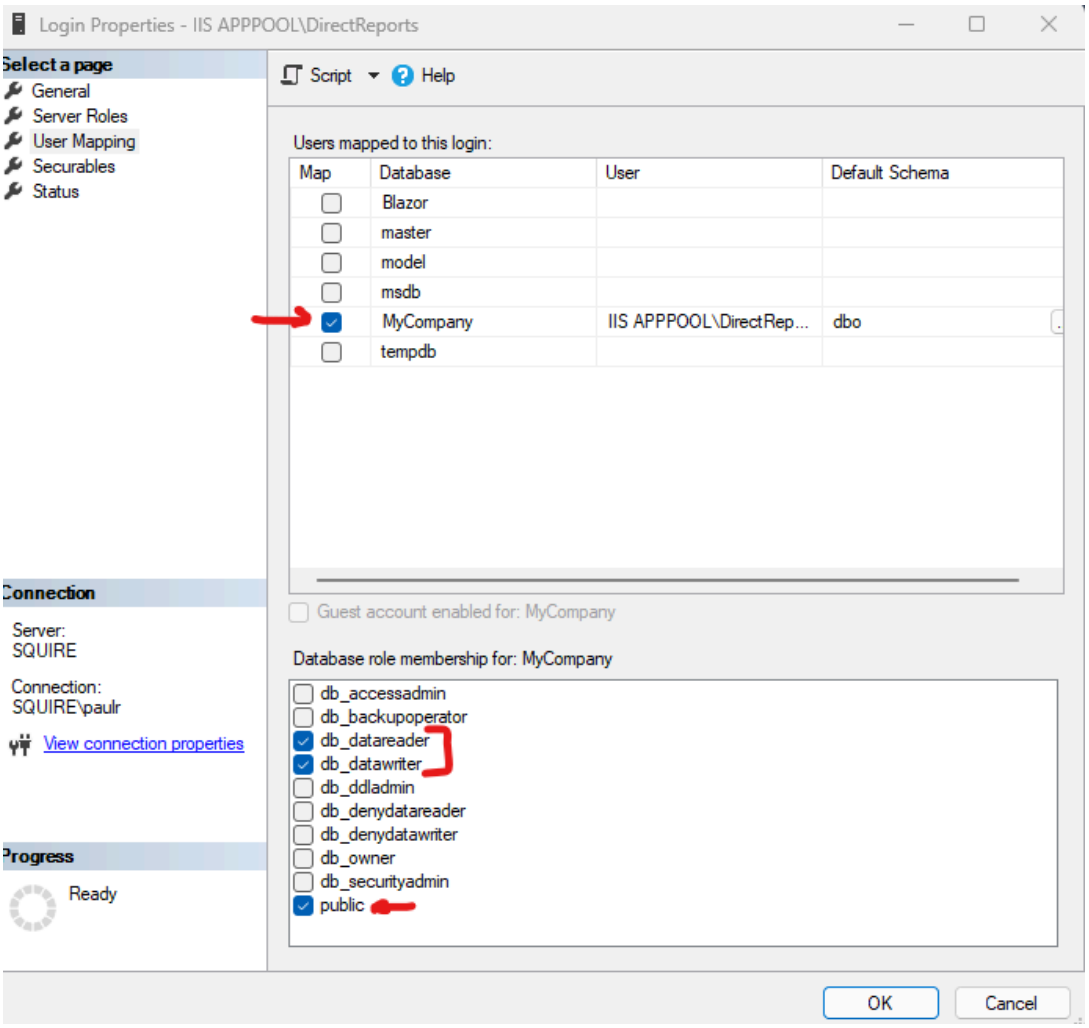


c. On the ‘General’ tab enter a login name for IIS APPPOOL\DirectReports with Windows authentication then click ‘Ok’



d. On the ‘User Mapping’ tab, locate and select the MyCompany database

i. Grant the db_datareader, db_datawriter, and public permissions then click 'OK'

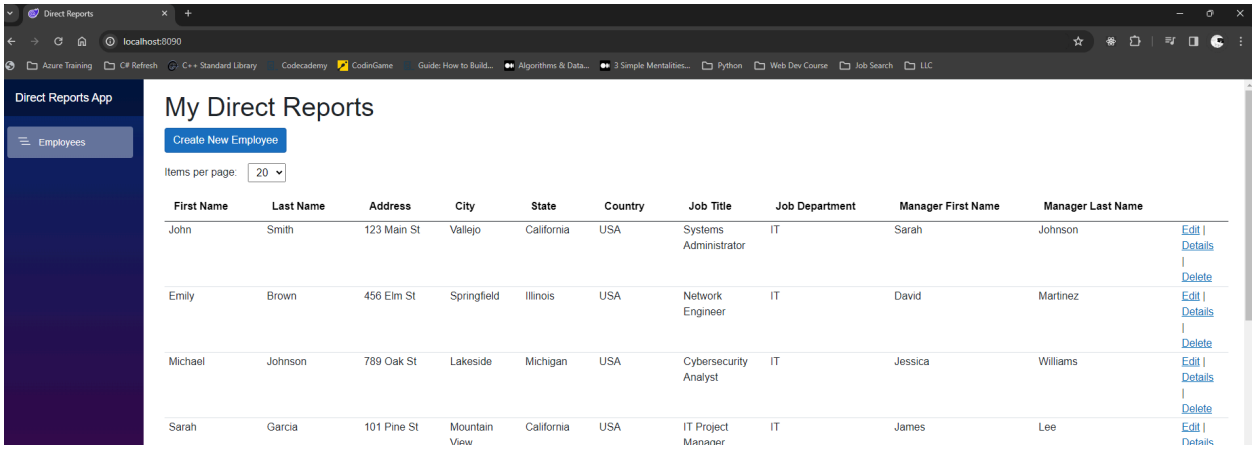


e. Close SSMS

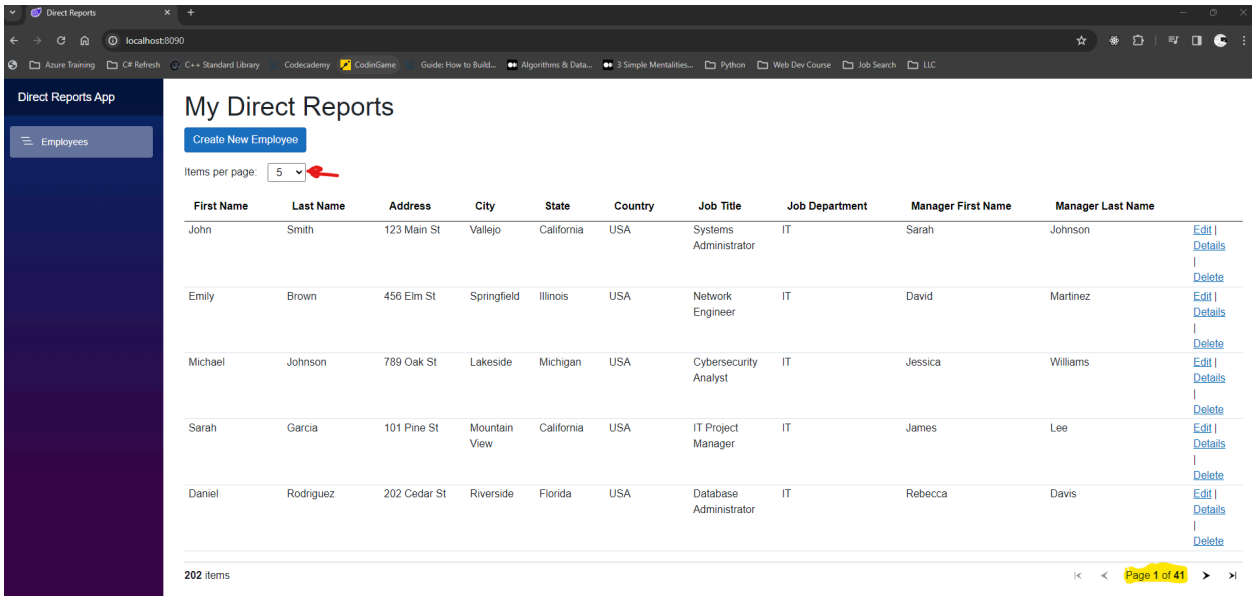
6. Setup to run locally on IIS is complete!

Testing:

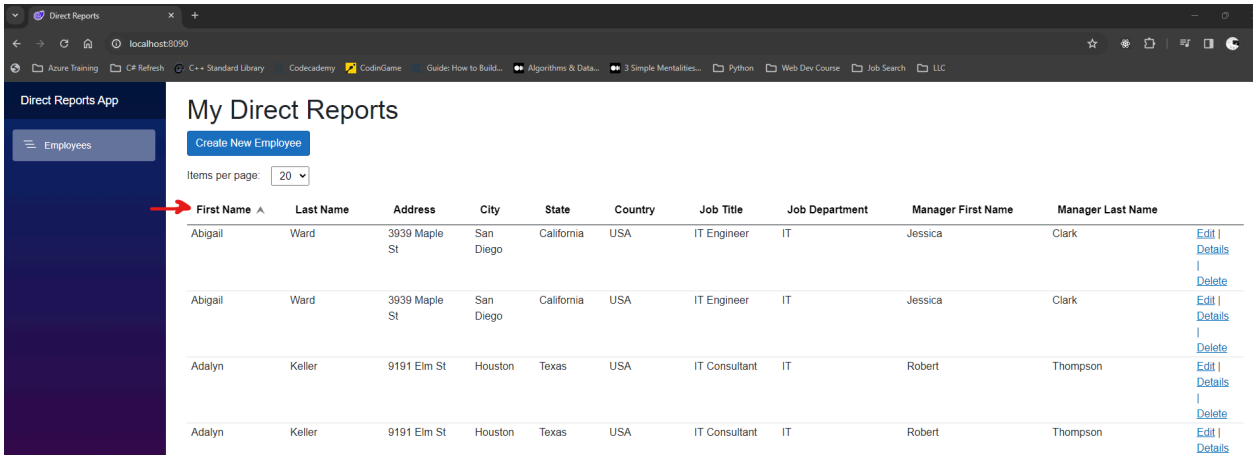
Now that setup is complete the app is ready for testing! Open your favorite browser and navigate to the port you set up in IIS for the site. For example if you used port 8090 you can type *localhost:8090* in the URL. You should now see the app in your browser displaying employee list data:



The list defaults to 20 records per page however this is customizable with the ‘Items per page’ drop down. If you select a different option the list will adjust in size:



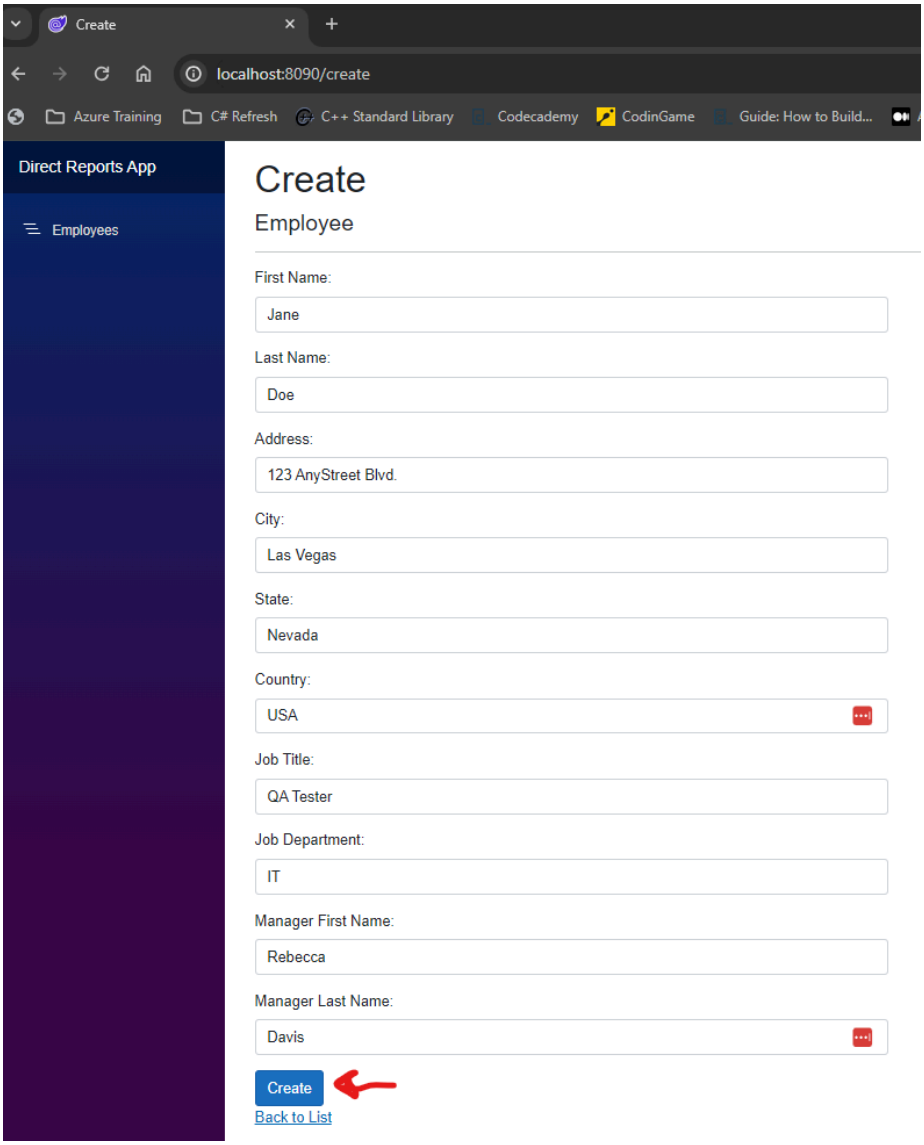
The pagination at the bottom of the list will also adjust based on the items per page. In addition, each column sorts in ascending and descending order if you click the column header:



Below are some steps to test any of the additional functionality:

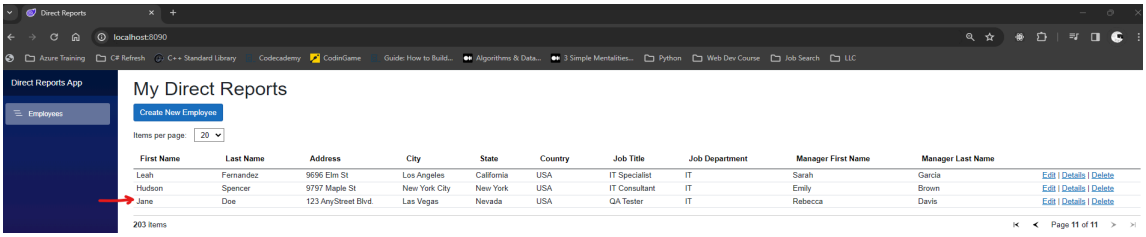
1. Test Create New Employee
    a. Click the ‘Create New Employee’ button

b. On the Create page fill out the form



c. Click the 'Create' button which will create the new employee and navigate you back to the list

d. Scroll to the end of the list and you will see your new record

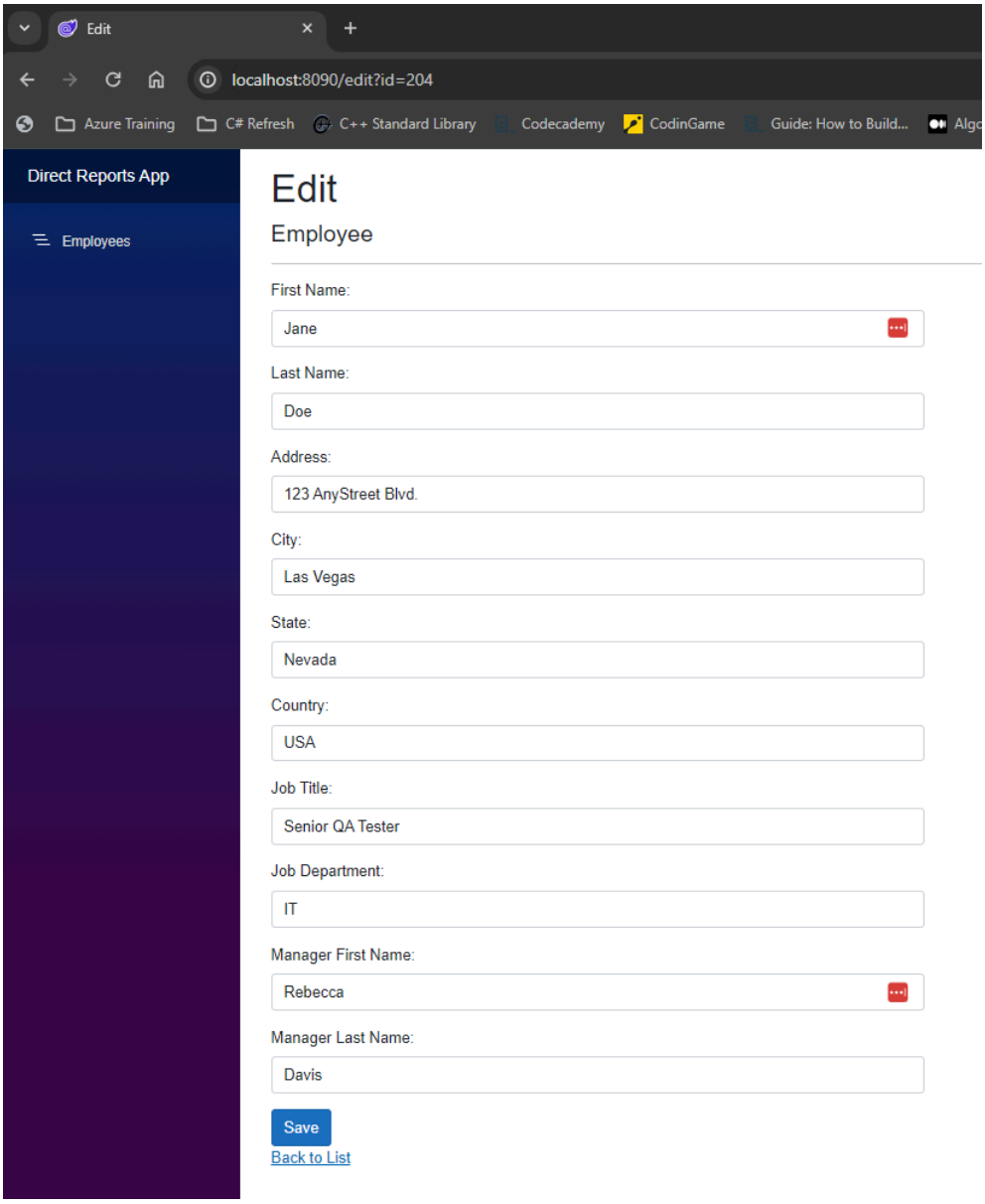


e. You can also query the Employees table in SSMS if you wish to see that the record was added to the MyCompany database:

```
select * from MyCompany.dbo.Employees
```

2. Test Edit link

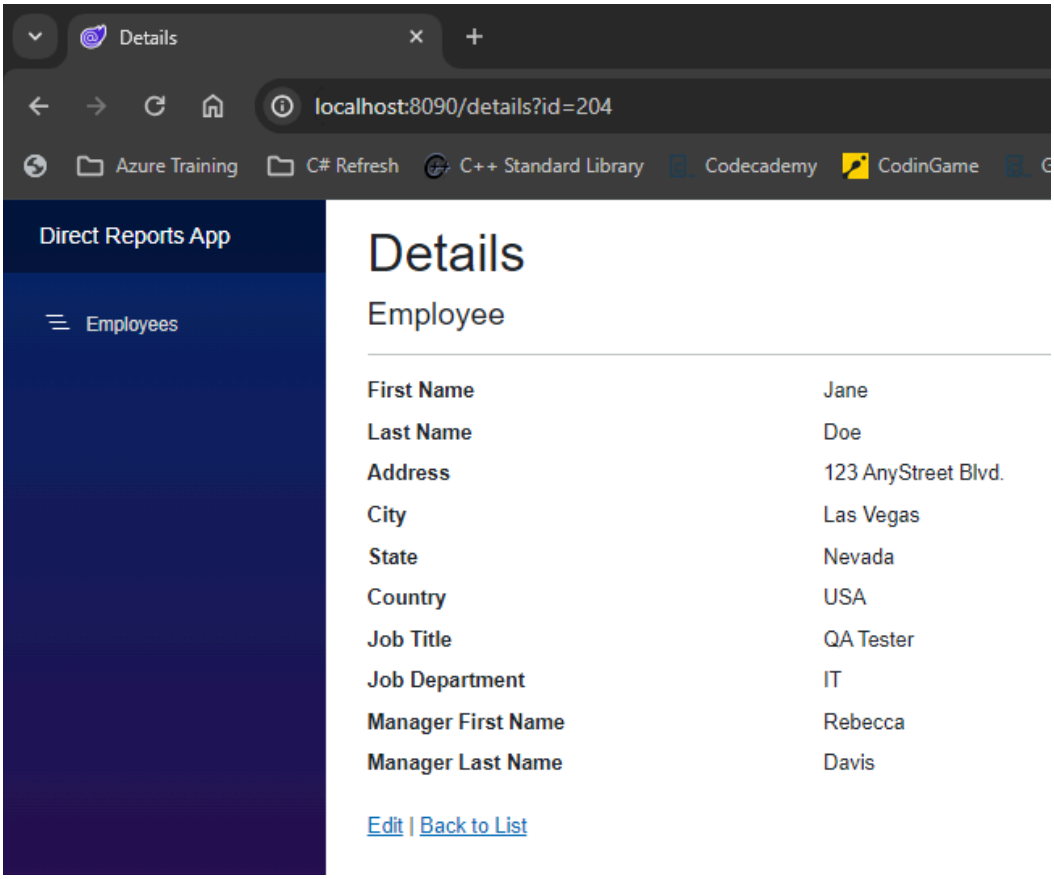
a. Click the ‘Edit’ link to edit an employees details



b. Click ‘Save’ to save your edits and navigate back to the main list
c. You can confirm your edits were saved by checking the employee details, finding the updated record in the list, or querying SSMS for the record

3. Test Details link
    a. Click the ‘Details’ link

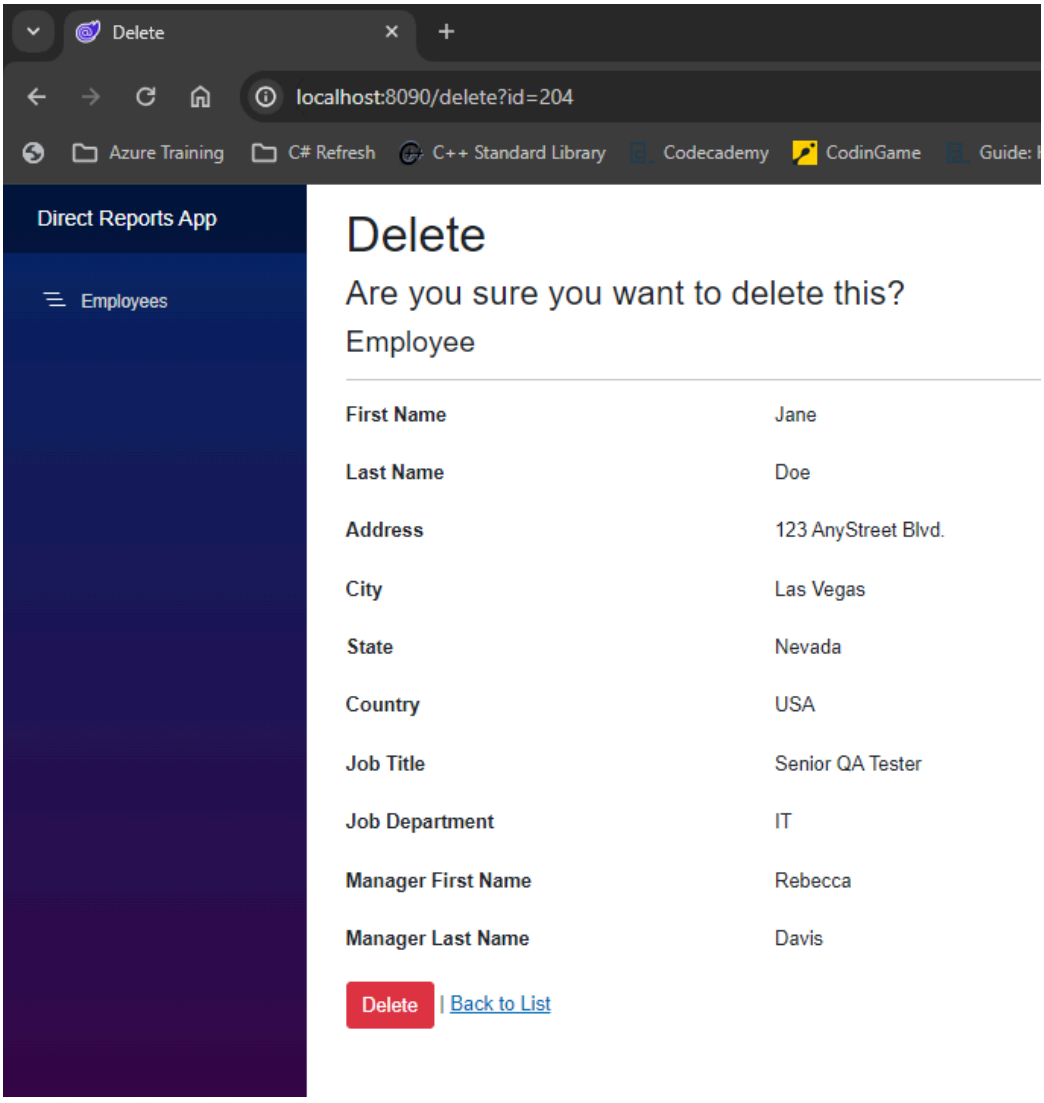
b. You will see the employee details displayed



c. Click ‘Back to List’ to go back to the main list

4. Test Delete link
    a. Click the ‘Delete’ link

b. You will be taken to the delete page



c. Click the ‘Delete’ button which will delete the record and navigate you back to the main list page

5. Have fun playing around and testing out other scenarios!