CHALLENGE #2 – Geocode customers (LEVEL 3)

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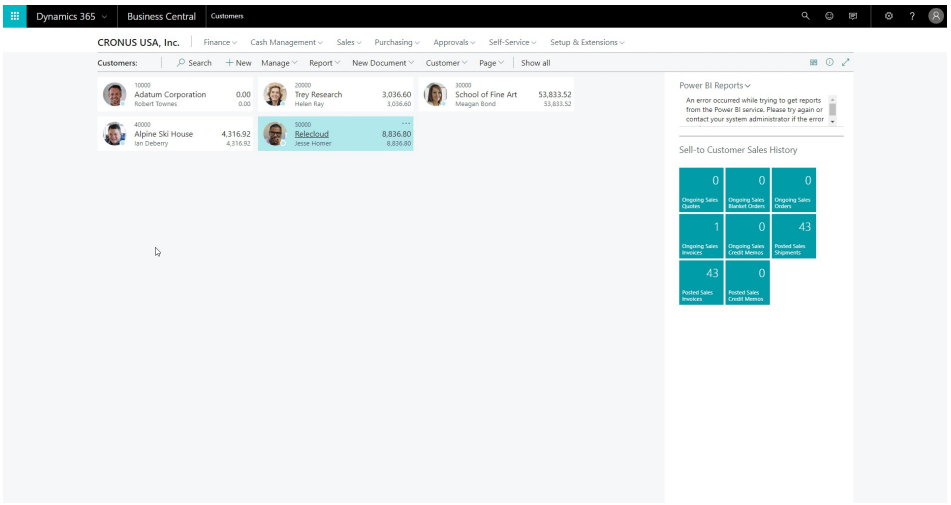
as well. As a bonus, you can create an action, which will display all customers within a certain range on a map.

To complete this challenge, you will need

- A Dynamics 365 Business Central Sandbox Environment
  - Use http://aka.ms/bcsandbox (http://aka.ms/bcsandbox) to create an Azure VM if you do not have a sandbox environment.
- Visual Studio Code with the AL Extension installed
  - Azure VMs will have VS Code pre-installed
- A BingMaps API Key from https://www.bingmapsportal.com (https://www.bingmapsportal.com) (Public WebSite or Dev/Test key)

Expected result



Steps

- Create an empty app
- Create a table extension for the customer table and add fields
- Create a page extension for the customer card and add fields
- On the *OnBeforeModify* and *OnBeforeInsert* triggers on the *Customer* table, geocode the customer address using BingMaps API
- Create a *CardPart* page showing a map of the geocoded position
- Create an action opening a browser with all customers as shared places

Hints

- In VS Code, use Ctrl+Shift+P and type AL GO and remove the customerlist page extension
- Use the *ttableext*, the *tfield* and the *tkey* snippets
- Use the *tpageext* and the *tpagefield* snippets
- Use *HttpClient* to communicate with the Web Service and use Json types (*JsonObject*, *JsonToken*, *JsonArray* and *JsonValue*) to extract values from the Web Service result
- Use *tpage* snippet and add *usercontrol* with the *WebPageViewer*. Use https://www.bing.com/maps/embed-a-map (https://www.bing.com/maps/embed-a-map) to see the html you can use In the control.
- Add location of all customers to the sp parameter as explained here: https://msdn.microsoft.com/en-us/library/dn217138.aspx (https://msdn.microsoft.com/en-us/library/dn217138.aspx)

Cheat sheets

- Create an empty app (https://msdnshared.blob.core.windows.net/media/2018/05/CHALLENGE-2-CHEAT-SHEET-1---CREATE-AN-EMPTY-APP.pdf)
- Create a table extension (https://msdnshared.blob.core.windows.net/media/2018/05/CHALLENGE-2-CHEAT-SHEET-2---CREATE-A-TABLE-EXTENSION.pdf)
- Create a page extension (https://msdnshared.blob.core.windows.net/media/2018/05/CHALLENGE-2-CHEAT-SHEET-3---CREATE-A-PAGE-EXTENSION.pdf)
- Code for geocoding an address (https://msdnshared.blob.core.windows.net/media/2018/09/CHALLENGE-2-CHEAT-SHEET-4-CODE-FOR-GEOCODING-AN-ADDRESS.pdf)
- The customer map card part (https://msdnshared.blob.core.windows.net/media/2018/05/CHALLENGE-2-CHEAT-SHEET-5---THE-CUSTOMER-MAP-CARD-PART.pdf)
- Add the customer map to the Customer Card (https://msdnshared.blob.core.windows.net/media/2018/05/CHALLENGE-2-CHEAT-SHEET-6---ADD-THE-CUSTOMER-MAP-TO-THE-CUSTOMER-CARD.pdf)
- Show all customers on a map (https://msdnshared.blob.core.windows.net/media/2018/05/CHALLENGE-2-CHEAT-SHEET-7---SHOW-ALL-CUSTOMERS-ON-A-MAP-.pdf)

Happy coding

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