Project Report

Aliaxis VIP Contact

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COMPANY NAME

PROJECT SUMMARY

Objective

To develop an application that allows the users to import all "VIP" contact of Aliaxis company from Azure Active Directory server on mobile device.

Requirements:

- 1. Develop the Back-End
 - We will use Azure Active Directory as an authentication provider
 - We will create a mobile service on Windows Azure Directory, accessing the API to load all user contact information
- 2. Develop the Client-Side (Application)
 - We need a framework that can run cross-platform (iOS, Android OS, Windows Phone OS, etc.)
 - The features we are going to develop are:
 - A. Login (use Azure Active Directory Authentication)
 - B. Import directly Aliaxis contact list
 - C. Logout
- 3. Devices supported:
 - Android OS
 - iPhone OS
 - Windows Phone OS (from version 10.0 or higher)
 - Blackberry (from version 10.2.1 or higher, using Android apk file to install)

Solution

- Framework: ionic2 to build our application, running on different mobile OS
- Web Technology: HTML5, Angular2, TypeScript
- Plugins:
 - A. cordova-plugin-ms-adal: to connect with the Azure Active Directory
 - B. cordova-plugin-x-contact: to work with the mobile user contact

Project Outline

TASK	DUE DATE	DONE	INITIALS
Set up Azure AD Server - create a service to access user contact - create a contact list for test)		done	
Add plugin to connect with Azure AD		done	
Add plugin to work with the mobile user contact		done	
Create menu		done	
Create mobile user contact page		done	
Create aliaxis user contact page		done	
Implement login feature		done	
Implement Logout feature		done	
Implement feature "import" the aliaxis contact into the mobile user contact		done	
Implement feature "call"		done	
Implement feature "text"		done	

TASK	DUE DATE	DONE	INITIALS
Implement feature "share"		wait for the design	
Create About page		wait for the design	
Create Account page		wait for the design	
Implement Loading dialog		done	

SETUP ENVIRONMENT

Repository

• the source code can be found at:

https://github.com/hieuld/aliaxiscontact

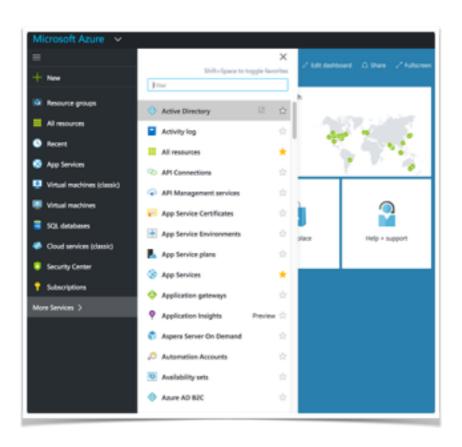
• download or clone the source code using command line:

git clone https://github_account@github.com/hieuld/aliaxiscontact aliaxiscontact

Initiate Mobile Service

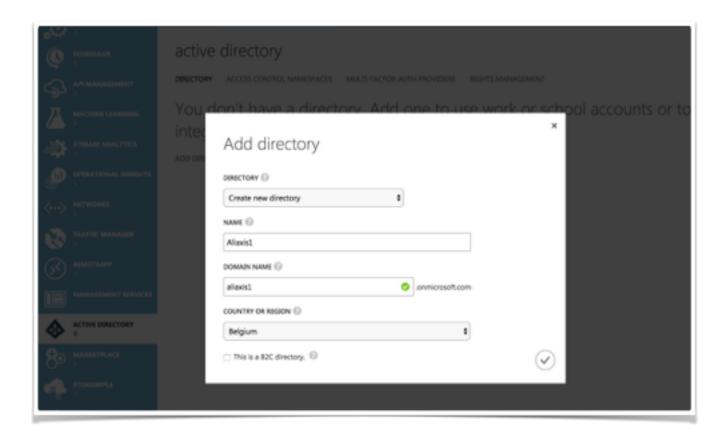
1. Login into Azure AD

- open portal.azure.com
- login with the admin account
- open Active Directory
 open More Service Active Directory login again (if needed)



2. Create a directory

open Active Directory - add directory (or use existing directory)



Name: Aliaxis1

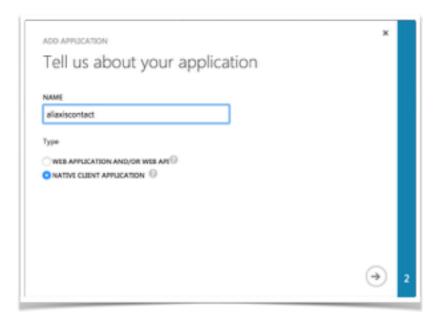
Domain Name: aliaxis1.onmicrosoft.com

Country or region: Belgium

All information above is up to you. You can choose whatever name you want if the name doesn't exist.

3. Register an application with Azure AD

- double click on the directory that we have created (Aliaxis1)
- select the tenant (aliaxis1)
- click the Application tab, and click Add in the bottom drawer
- add an application my organization is developing
- follow the prompts and create a new Native Client Application.

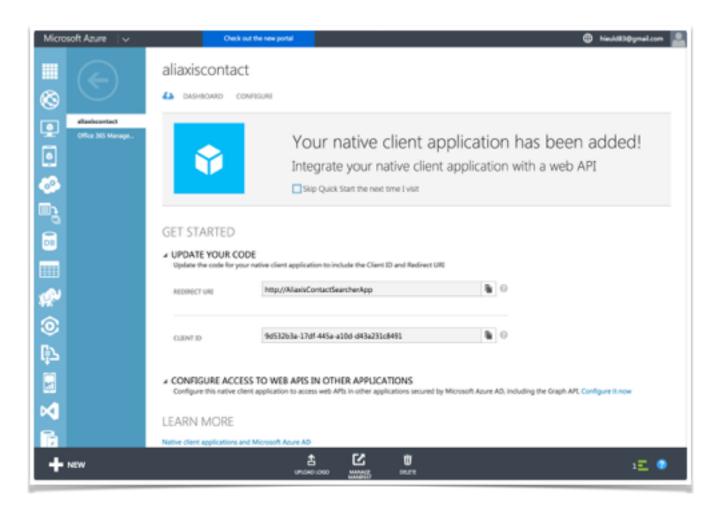


- the **Name** of the application will describe your application to end-users.
- the **Redirected URI** is the URI used to return tokens to your app. Enter:

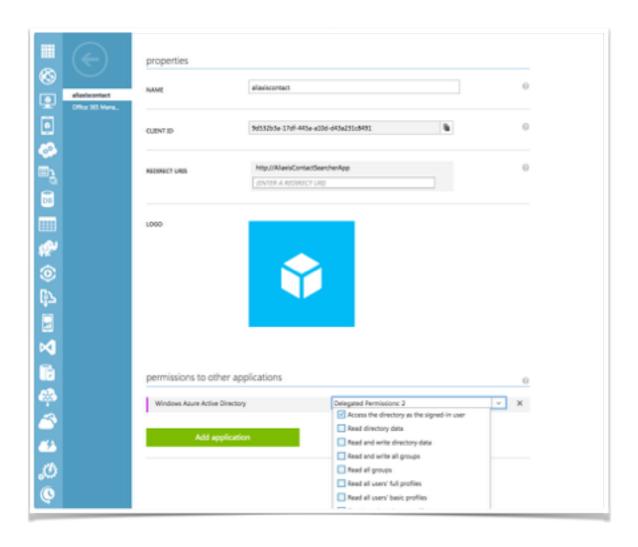
http://AliaxisContactSearcherApp

4. Configuration

• once you've completed registration, AAD will assign our app a unique client identifier (**Client ID**). We will need this value for the mobile application.

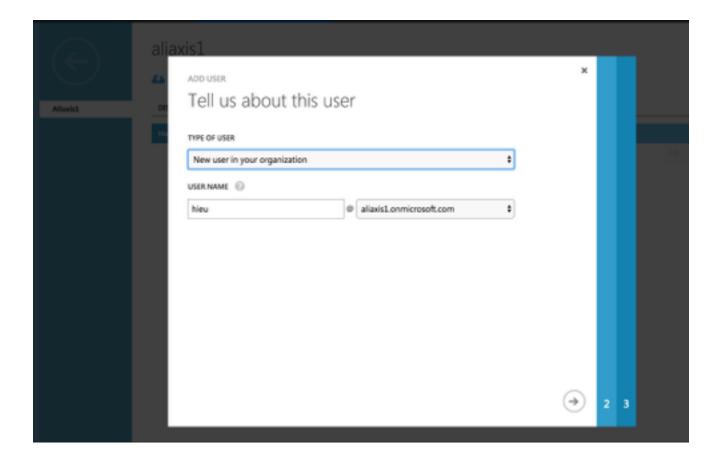


- e grant the newly created app permission to query the Azure AD Graph API. In Configure tab, locate "Permissions to Other Applications". For the "Azure Active Directory" application, add the **Access the directory as the signed-in user** permission under **Delegated Permissions**. This will enable your application to query the Graph API for users.
- save the setting.



5. Add Users

- click back to the Aliaxis1
- add Users (create a new one or choose the existing users)



- if you create a new user, you will get the temporary password. Save it for the later use or reset password.
- provide more information for the users (e.g., work place, mobile phone, display name, etc.)

Install npm

- download the npm from: https://nodejs.org/en/download/
- update the npm: npm install npm -g

Tips for windows users: I use **cygwin** - a similar Linux/Unix command line system in Windows. With **cygwin**, you can start using the command line. Download cygwin from here: https://cygwin.com/install.html

Install frameworks

• ionic2 is built on top of the framework cordova, so we need to install cordova first.

```
npm install -g cordova
npm install -g ionic@beta
```

• if the installation fails due to the lacking of any package, we can install these package.

npm install -g package

• install all packages needed, and then get back to install cordova and ionic2.

For more information: http://ionicframework.com/docs/v2/getting-started/installation/

Install plugins

• enter the directory of the project that we've downloaded.

cd aliaxiscontact

• install the azure plugins

ionic plugin add cordova-plugin-ms-adal

• install the contact plugin:

ionic plugin add cordova-plugin-contacts

• install the toast plugin:

ionic plugin add cordova-plugin-x-toast

Add Platforms

• add iOS platform:

ionic platform add ios

• add android platform:

ionic platform add android

• add windows platform:

ionic platform add windows

Another tips:

- how to list all platforms we've added: ionic platform —list
- how to remove a platform: ionic platform remove ios [android | windows]

Configuration

```
conf.ts — /Users/chipbk10/Documents/projects/aliaxiscontact
aliaxiscontact
                                   conf.ts
                             import { Injectable } from '@angular/core';
                            @Injectable()
                            export class Conf (
                              constructor() { throw new Error("Cannot new this class"); }
    Contact-list
    > iiii tabs
                                                       = "https://login.windows.net/common";
                                                       = "http://MyDirectorySearcherApp";
                              static resourceUri
                                                       = "https://graph.windows.net";
                                                       = "a24547d5-1611-48a6-8ba3-9773c9fcab10";
                              static graphApiVersion = "2013-11-08";
        conf.ts
    > 🛅 contact-data
    > im user-data
    theme
    app.html
    app.ts
```

- open the path: aliaxicontact/app/providers/conf/conf.ts
- set our redirect URI (see the **configuration** of the "**initiate mobile service**" section): AliaxisContactSearcherApp
- set the client ID: ...

Build & Run

• build the project

ionic build

• plug the mobile device into your computer, and see the id of your device

```
ionic run android —list
ionic run ios —list
ionic run windows —list
```

• get the device's id above and deploy on the mobile device

```
ionic run android —target="android-device-id" ionic run ios —target="ios-device-id" ionic run windows —target="windows-device-id"
```

for example:

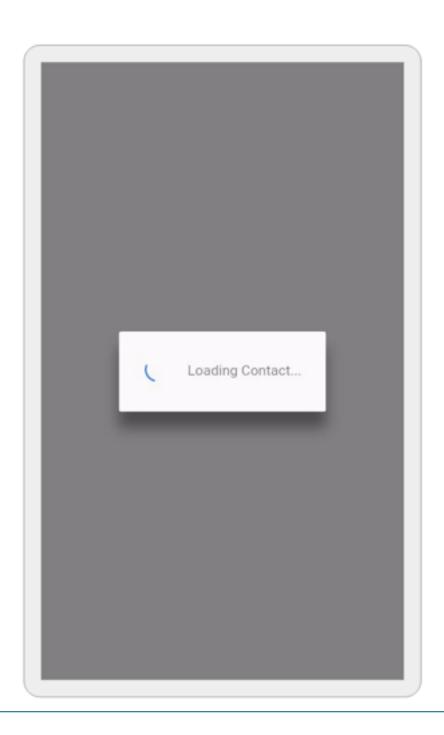
ionic run android --target=3100cc6eafd7c2df

(in which, 3100cc6eafd7c2df is the android device id)

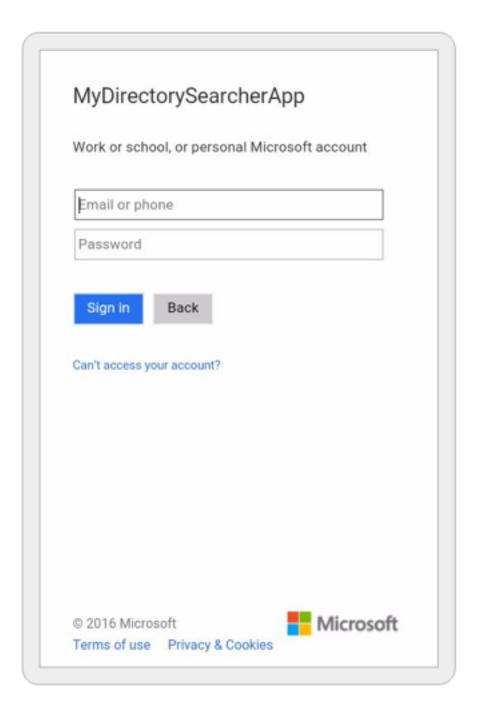
More Info:
For more information, please visit the web site:
http://ionicframework.com/docs/v2/getting-started/installation/

SCREENSHOT

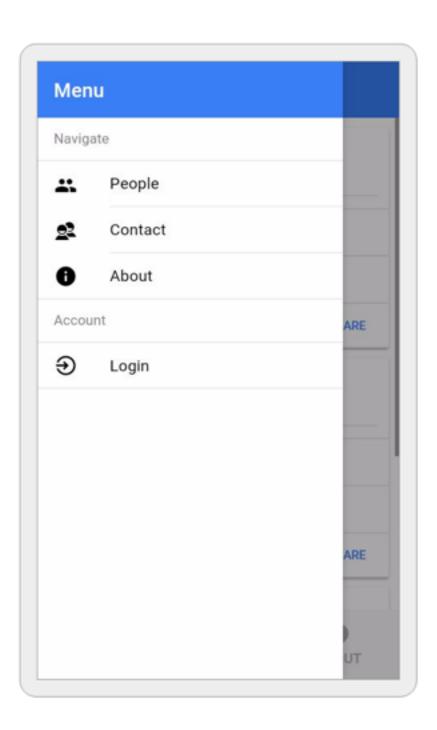
1. LOADING CONTACT



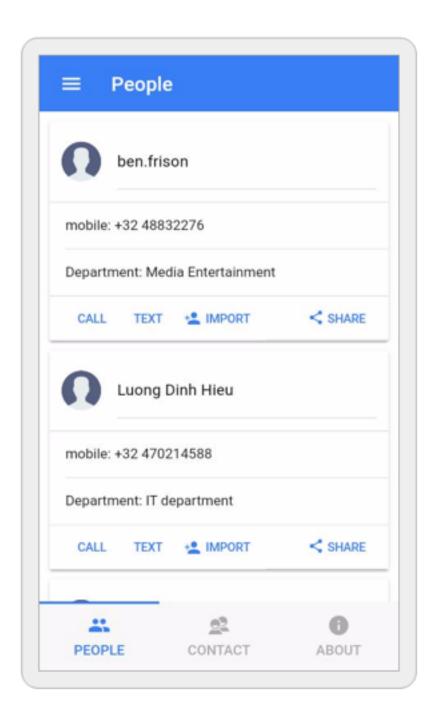
2. AZURE AD LOGIN



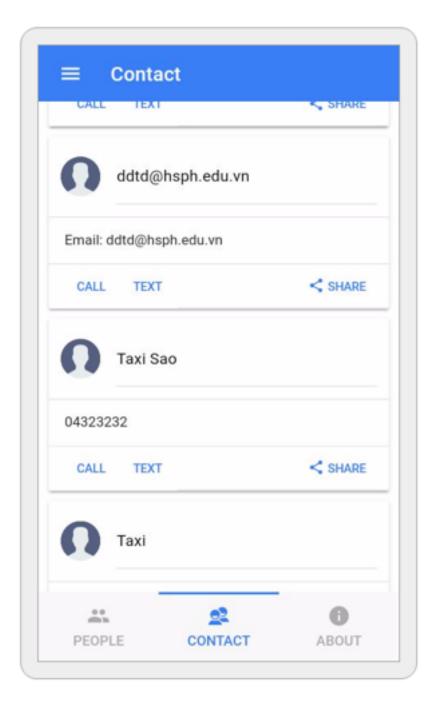
3. MENU



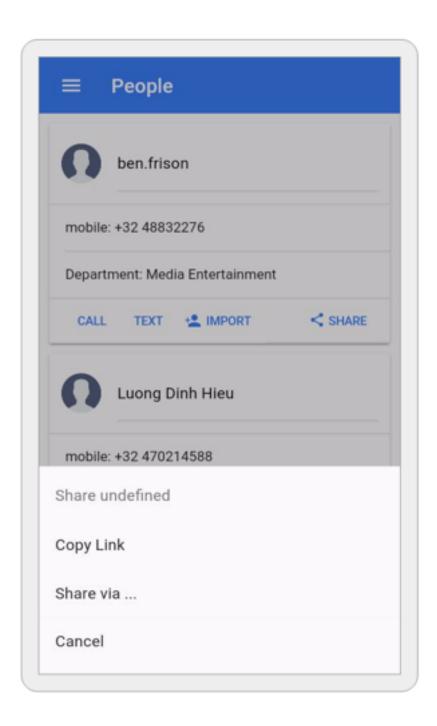
4. ALIAXIS USER CONTACT



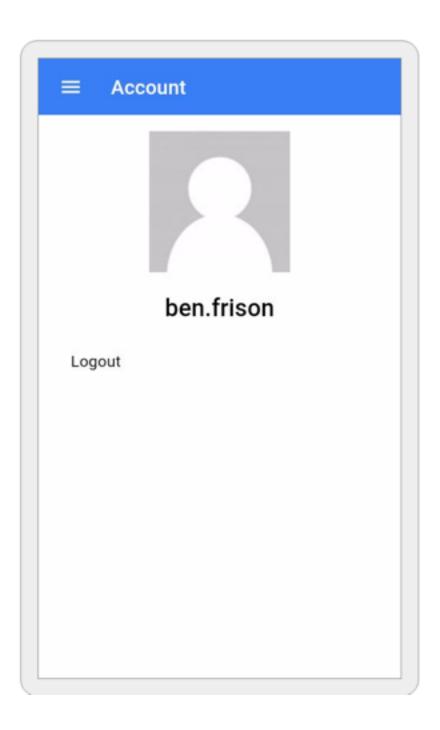
5. MOBILE USER CONTACT



6. SHARE FEATURE



7. ACCOUNT PAGE



8. ABOUT PAGE

