# Automating Xero Invoices

*Handling BlueBerryIT's*
*Client Xero Invoice process*

BlueBerry — Technology on your terms

## 1 Background

- BluberryIT is a medium sized IT Company with offices in the nelson and Marlborough regions.
- BlueBerryIT primarily focus is providing services to handling the planning, deployment and maintenance of a clients IT setup
- Part of this service is distributing a range of Microsoft Licences for use others' systems
- Currently, BlueBerryIT are sent a monthly invoice representing licence purchases and the client associated with the purchase
- An employee is required to manually submit invoice entries into their Xero accounting system.
- This is a painstaking process and can take numerous hours to complete

## 2 My Role

- My role has been to create a web application which BlueBerryIT which can be used to automate the processing of Cloud Service Provider Invoice information to Xero.
- Ideally the Web Application will be hosted on BlueBerryIT's Azure Cloud server instance
- I was Primarily working independently as BlueBerryIT Does not have in-house software developers (The task was planned to be outsourced initially)

## 3 Core Technologies

### ASP.NET Core

- Web framework used to power the application
- MVC architecture was implemented to handle logic operations and produce views containing dynamic data
- Suitable for BlueberryIT's Windows-Based ecosystem

### {API}

This application interface was used for

* establishing a connection to xero
* performing a login to xero to produce an access token
* Sending invoices
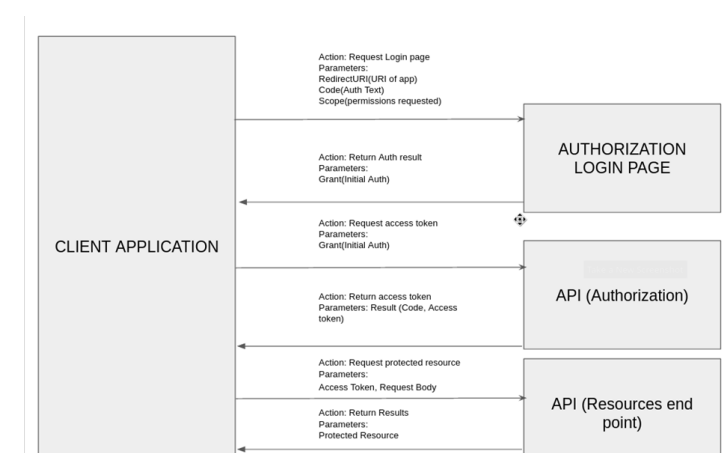* Producing responses to erroneous invoice entries

### CSP{API}

This application interface was used in

* Downloading the most recent monthly invoice collection
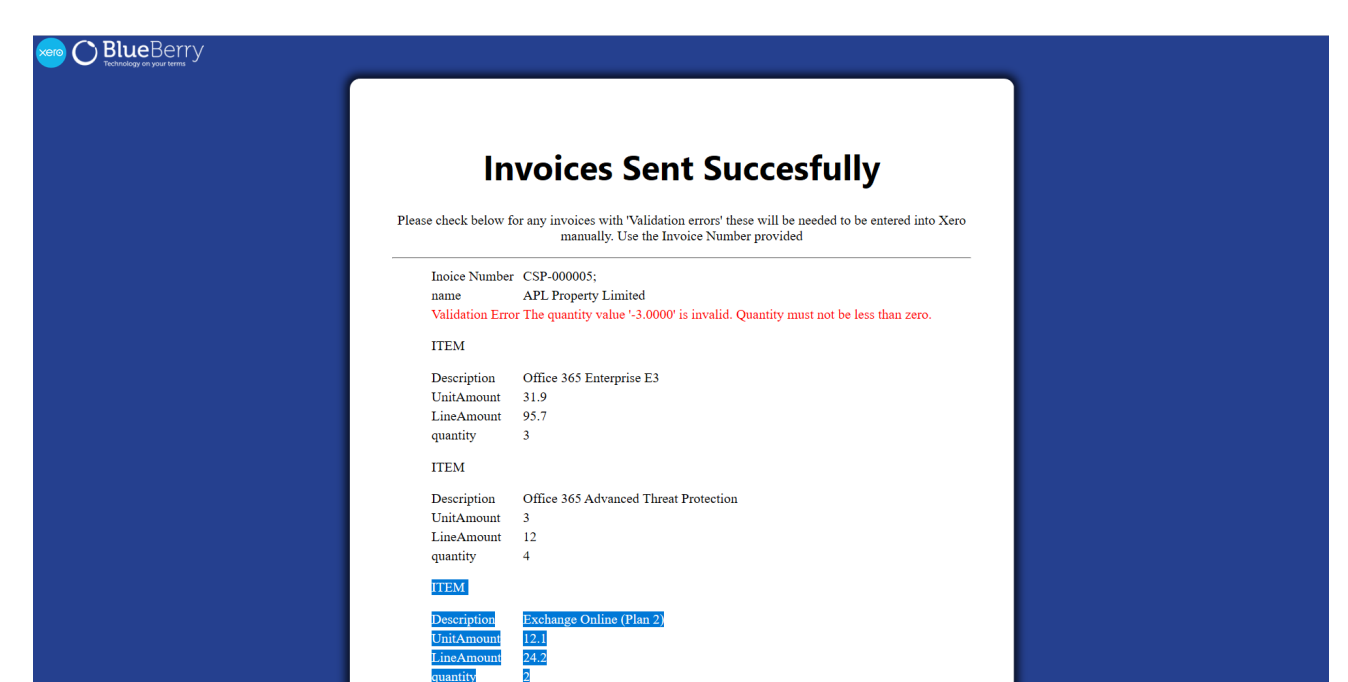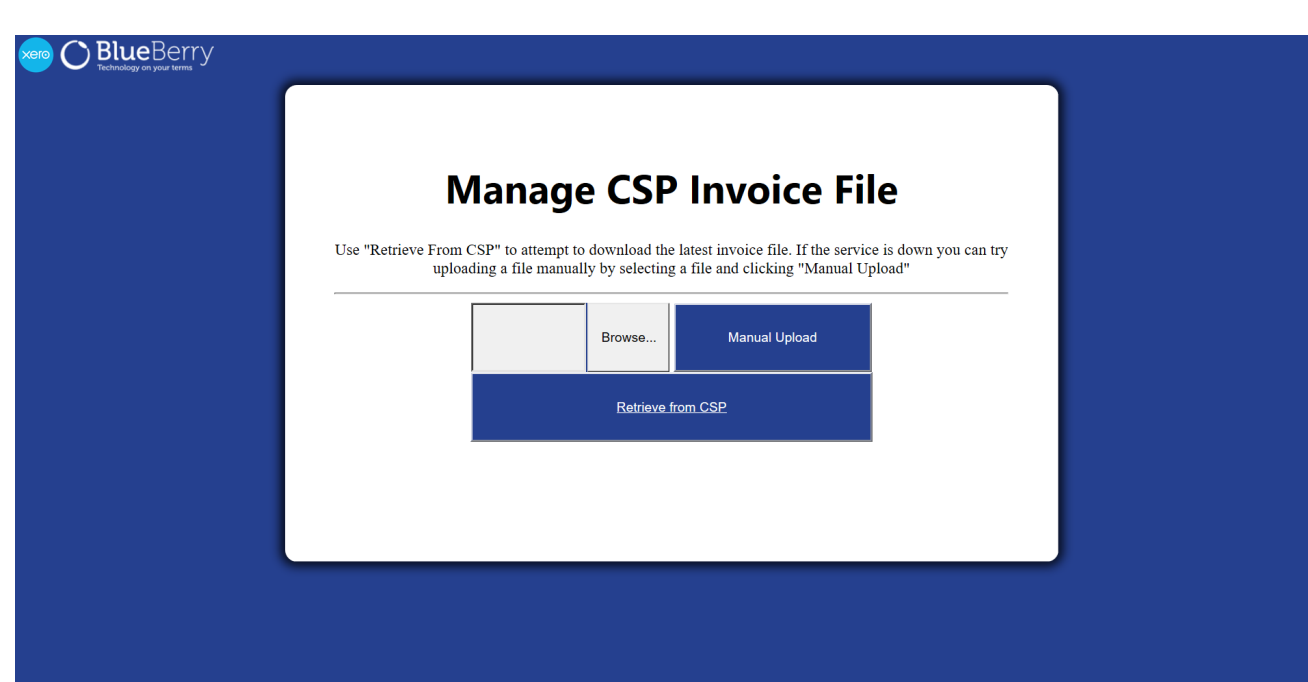
### OAuth2

Authentication protocol used by Xero API to authenticate third party access.

## 4 Client Interface

## 5 Results

- Overall, I was happy with the system I produced. It serves it's purpose well.
- Most bugs have been resolved and it seems to handle concurrent access without any apparent issues
- This application will save BlueBerryIT many Employee hours which could be better spent performing tasks of more value if they choose to use this
- I learnt an extensive amount regarding the technologies at play here my only regret being that I took them up an I simultaneous fashion as opposed to sequential. A narrower focus could have yielded more effective learning . Most of these technologies are highly industry relevant so I feel this will give me an advantage going forward.

*Please ask me anything you like about*
*my project placement,*
*And I will do my best to provide answers.*

Bryce Rowe     Bachelor Of Information Technology

Supervisor     Lars Dam

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