

# Computing Coursework 2018

## Planning

### Initial transcript

Client

so basically, Crypto Exchanges have APIs

I was wondering if it would be possible to create a desktop app that collates all of these into one manageable portfolio

I cannot find a windows PC version of any manager out there

and certainly not one that imports using the APIs provided by the exchanges

Me

hmm like information on the current exchange rate?

Client

yeah, and pulls the current amount of stock you hold in each coin

bittrex currently have one that I can use on an iOS app

Me

hmmm interesting - I mean it would need to integrate with wallets which would be more complex -> though why not just use a website to look up this stuff?

Client

I have 5 different exchanges

about 10 coins on each,

keeping the value of each and the percentage profit is a nightmare

especially if I'm day trading

I just need a better way of keeping track

Me

hmmm okay

would be interesting to work on - let me just have a look at the APIs out there

Client:

Alrighty

Me:

so I just got bittrex on my phone and I see the market you mean - you sure there's no one of these for windows already?

Client:

They provide an API, which I have found only one app that can use it

There's one company called Delta which could potentially be releasing something  
Just wondering what your thoughts on the whole situation were

Me:

I saw hmmm - i'll have a look at making a simple PoC and see how long it takes to integrate stuff together - looks like a fun project - and delta looks pretty good - I'm surprised no ones released a desktop version...

Client:

So am I, I would have thought they would release desktop before iOS or apps

Me:

mhm

I guess mobile is such a big market atm?

[...]

Design transcript

[...]

## Client Brief

After the initial training the client requires a more useful version of the prototype

A desktop application which allows me to view my current portfolios and balances of bitcoins and various other cryptocurrencies. I would like it to automatically update with the current market price of the bitcoin to other currencies. I would like it to be customisable, stylish and easy to use. Additionally, I want it integrated with as many different currency exchanges as possible to maximise its usage.

## MVP Plan

A minimum viable product - my initial requirements of the client's requirements

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### Similar product research

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Cryptolio - <https://github.com/larion/cryptolio>

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CryptoCompare - <https://www.cryptocompare.com/portfolio/>

### General development model

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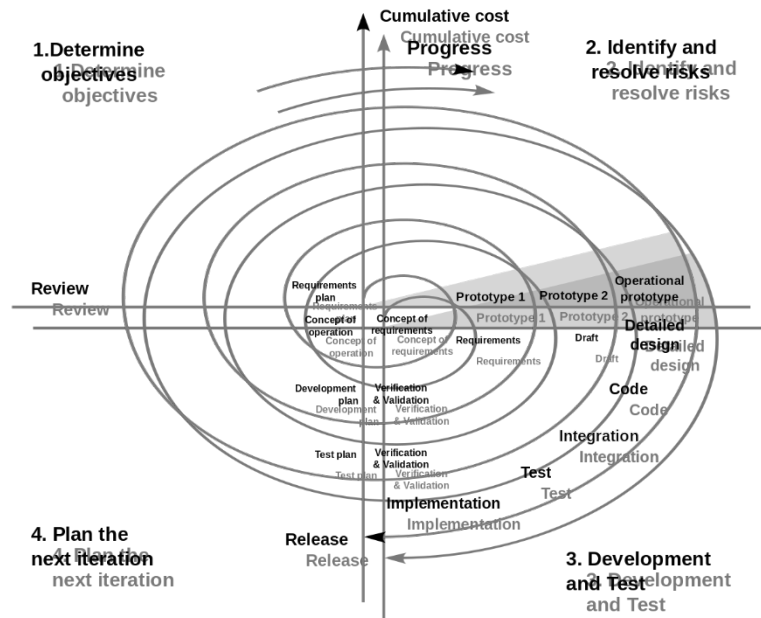


Figure 1. Spiral model development

## Technologies needed

### Language Choice

There are many languages available that can be used to develop software. The choice of language is often based on the requirements of the project. Some languages are better suited for certain types of applications, while others are better suited for others. The choice of language should be based on the needs of the project and the skills of the development team.

C# / WPF -

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#### APIs

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Electron is a framework for building cross-platform desktop applications with web technologies. It is based on Chromium and Node.js. Electron allows you to write desktop applications in JavaScript, HTML, and CSS. It is a great choice for building desktop applications that need to be cross-platform and have a modern, web-like user interface.

## Style choices

## Testing framework

### Hardware and software requirements

The hardware and software requirements for Electron are as follows:

- Operating system: Windows 7 and later, macOS 10.9 and later, Linux (Ubuntu 12.04 and later)
- Processor: Intel Core i3 or equivalent
- Memory: 4GB or more
- Storage: 1GB or more free space

The recommended hardware and software requirements for Electron are as follows:

## Supported Platforms

Following platforms are supported by Electron:

### macOS

Only 64bit binaries are provided for macOS, and the minimum macOS version supported is macOS 10.9.

### Windows

Windows 7 and later are supported, older operating systems are not supported (and do not work).

Both `x86` and `x64` binaries are provided for Windows. Please note, the `ARM` version of Windows is not supported for now.

### Linux

The prebuilt `x86` and `x64` binaries of Electron are built on Ubuntu 12.04, the `arm` binary is built against ARM v7 with hard-float ABI and NEON for Debian Wheezy.

Whether the prebuilt binary can run on a distribution depends on whether the distribution includes the libraries that Electron is linked to on the building platform, so only Ubuntu 12.04 is guaranteed to work, but following platforms are also verified to be able to run the prebuilt binaries of Electron:

- Ubuntu 12.04 and later
- Fedora 21
- Debian 8

Figure 1. Supported systems for Electron

Electron is a framework for building cross-platform desktop applications with web technologies. It is based on Chromium and Node.js. Electron allows you to write desktop applications in JavaScript, HTML, and CSS. It is a great choice for building desktop applications that need to be cross-platform and have a modern, web-like user interface.

## Conclusion

Electron is a great choice for building desktop applications that need to be cross-platform and have a modern, web-like user interface.

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## Basic Layout design

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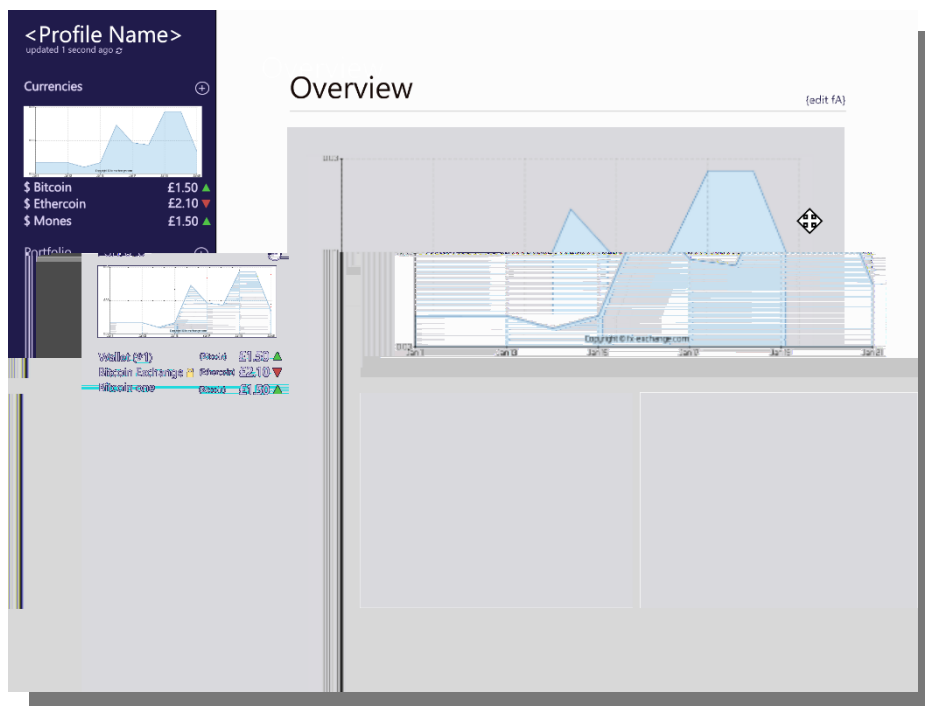


figure 2.3A basic design of what two applications might look like

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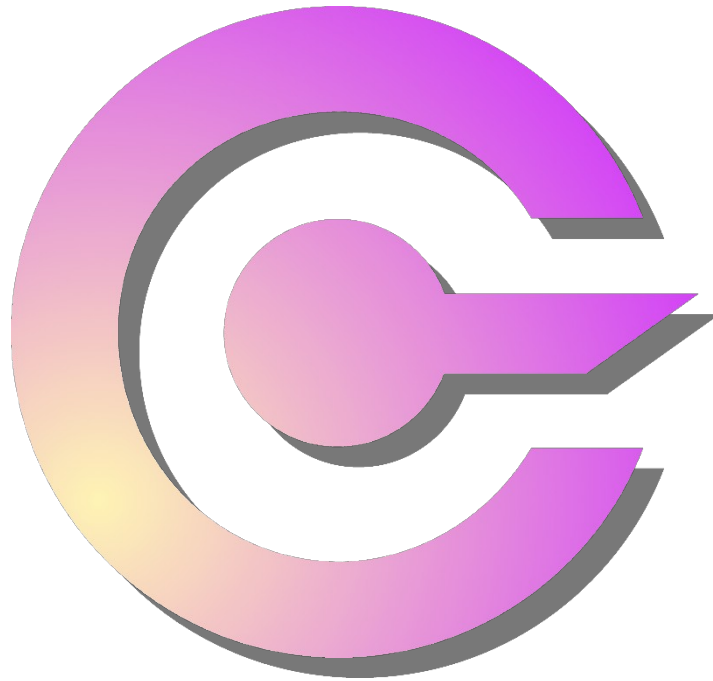


Figure 4. Etouced cryptocurrency logo 5'e Application logo

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## Tests needed for MVP

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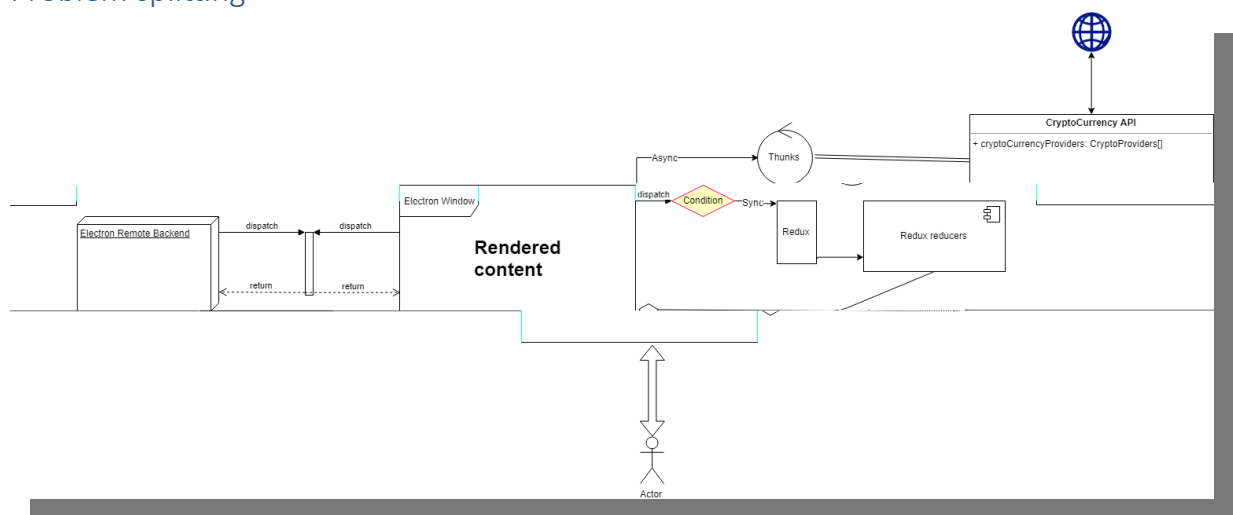
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## Problem splitting



## Development

### Testing

### Testing Needed

## Evaluation

### Testing

## Bibliography

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