# Analysis

## The problem background

Utopia Handmade and Vintage is a retail and clothing company. It is run by my brother Mr. T. Harding and his partner. The business is quite small and they tend to make most of their sales through online third-party websites such as etsy.com and also at stalls at multiple different music festivals. As the business is starting to grow and the company is transitioning from something more of a hobby over to an actual business, my brother has come to the realization that taxes and bookkeeping are legal responsibilities which will become very prevalent in his future. A lot of small business owners tend to use Microsoft Excel or bookkeeping software which can be bought online such as ‘Quickbooks’ and ‘Sage’ however I intend to make a program which can be used (most likely by him) to help assist and record the bookkeeping for the company.

As I personally had a very limited understanding of bookkeeping and accounting I decided that step one would be to do some basic preliminary research into this field. I came to the understanding that double entry bookkeeping is the standard method used in the modern world. Some other things I noted is the need and usefulness of balance sheets and profit and loss statements.

The second step I decided to take was to arrange a meeting with my brother as he would be the end user of the product I intend to build. The two things I was hoping to address with him were his current options for bookkeeping software which he could purchase and use, and the requirements he would need in a bookkeeping software for his business. After some quick research we concluded that although excel was the most cost-efficient option not only did my brother not know anything about using it but it also only allowed cashbook accounting where as he was looking for a double entry bookkeeping system. The other requirements he noted will be mentioned further on.

To conclude I decided that I would start of by creating a very standard double entry bookkeeping system as this would act as a good foundation to add improvements to and tailor it towards the end users more specific requirements. This also helps as it allows for me to make sure the basics are all up and running before getting into a greater level of depth and detail.

### Research into Accounting

I came to the realization that I will need to learn a substantial amount more about accounting and bookkeeping to be able to fully take on and produce a suitable product for my client. To do this I have decided to use a very well acclaimed textbook which is used by most schools and colleges in the UK to teach accounting. It is called “Business Accounting 1” by Frank Woods and Alan Sangster. The book starts from the very basics of accounting and provides multiple practice questions and examples which I will be able to use in the testing and development of my project. I am hoping to progress my program as I progress through the textbook so I can develop the program hand in hand with my learning of the subject. This is how I plan to create the foundation for my program as stated earlier.

### The current system

The company is currently quite small as I stated earlier and is therefore under the minimum tax bracket. This means that currently they do not have any system in place for bookkeeping as there has been no need for it so far.

### Clarification of The End User

Although my client is Utopia Handmade and Vintage I would say that Mr. T Harding will be my sole end user for the system as he is one of the owner’s and the most likely out of the two to be doing the bookkeeping. He will be my first point of contact for information on what he will require from me. Therefore, the system will be catered towards his requirements and he will also be the person I get to test the program once it is in its later stages and past the book level testing.

### User requirements

1. The program should be able to perform the basic functions of a double entry bookkeeping system, this includes but is not limited to:

* Allowing the user to create multiple different accounts.
* Allow the user to add sub accounts.
* Allow the user to record transactions between the accounts.
* Use these transactions to form a balance sheet.
* Use transactions to make up a profit and loss statement for a requested time period.
* The program should also have the ability to audit user’s actions.

1. The system must be easy to use, simple to understand and navigate, and display data and information in a way which is tidy, efficient and easy to understand.
2. The system will NOT require any authentication process as It will be a locally run program therefore it will only be accessed from the clients own computing device.
3. The client would like the system to be as aesthetically pleasing as possible; as it will be used for long hours therefore it should not be dull.

I would like to expand on Auditing which was mentioned in point 1. Auditing is very much an important part of an accounting system, it does not add value to the actual value to the arithmetical function of the program, but every accounting system should 100% have auditing functionality for legality reasons. Both Sage and Quickbooks do have an audit trail (excel has some ability to record user actions but it is not up to standard).

Of course, the example I mentioned earlier such as Quickbooks and Sage can do all of these things and more however I believe that as Mr. Harding the end user is new to bookkeeping it would in fact be more beneficial to keep the accounting side to the simplest level possible. One other important thing is that my code will all be free and open source (being shared via GitHub) this allows for other users to further extend to its functionality and add complexity to it if needs be.