‘

18 June 2018

James Humphries

A level – Computer Science

[Document subtitle]

Contents

[Analysis 2](#_Toc523945647)

[The problem 2](#_Toc523945648)

[What is the problem? 2](#_Toc523945649)

[Why are computational methods most suited to this situation? 2](#_Toc523945650)

[Who are the stakeholders? 3](#_Toc523945651)

[Research for the problem 4](#_Toc523945652)

[Contact with stakeholder 4](#_Toc523945653)

[Initial email contact 4](#_Toc523945654)

[Interview one 4](#_Toc523945655)

[Interview plan – what do I need to know? 4](#_Toc523945656)

[Interview transcript 4](#_Toc523945657)

[Interview analysis - What do I now know, what is my understanding of the problem 4](#_Toc523945658)

[Interview two 4](#_Toc523945659)

[Interview plan – what do I need to know? 4](#_Toc523945660)

[Interview transcript 4](#_Toc523945661)

[Interview analysis - What do I now know, what is my understanding of the problem 4](#_Toc523945662)

[Interview three 4](#_Toc523945663)

[Interview plan – what do I need to know? 4](#_Toc523945664)

[Interview transcript 4](#_Toc523945665)

[Interview analysis - What do I now know, what is my understanding of the problem 4](#_Toc523945666)

[Comparison with other solutions 4](#_Toc523945667)

[Solution 1: 4](#_Toc523945668)

[Solution 2: 4](#_Toc523945669)

[Solution 3: 4](#_Toc523945670)

[Analysis of Research 4](#_Toc523945671)

[Essential Features 4](#_Toc523945672)

[Non Essential Features – time permitting 5](#_Toc523945673)

[Avoidable Features 5](#_Toc523945674)

[Limitations of my solution 5](#_Toc523945675)

# Analysis

## The problem

### What is the problem?

In any economic system people have resources which are unutilised as they are no longer in use, they would be much better used by people who have a use for them. Many of these people with deficit items may be of low quality or quantity and not worth setting up a shop due to the large financial upfront cost. Many people just do not want to own or work in a shop, therefore people use a platform to sell these items. Disposing of items can be inconvenient, if an object is decided to be disposed of at a council waste site this can incur costs and the hassle of leaving the house or waiting at home all day for it to be picked up by the council. A suitable solution would massively reduce the number of items that could be reused entering landfill which can leach toxins into the soil and groundwater, electronic items being a large factor in this, this could easily be reduced by making it simpler to sell the item than it is to dispose of it. Meaning that people can get use of items which were once used. The factors of my solution would be to reduce the amount of time taken for a transaction to complete, reduce the fees that are currently incurred and reduce the hassle it is to sell said items. Often these factors are of greater importance then the monetary value of the item being sold, with a suitable solution this would not be the issue.

### Why are computational methods most suited to this situation?

The main reason a computational approach would be an ideal solution to this issue is that without it there would be a lot of manual work for a person to do when a computer could easily do such a job. An example of this would be if an item is sold then rather than a person sitting there removing all sold items from the site they would automatically get removed without the need for a person to authorise it. These sort of tasks are simple and require no human interaction therefore would be ridiculous to have someone doing it when a computer could make the whole thing more streamlined.

The old fashioned solution to selling items would involve a lot of leg work from a person, such as writing up adverts and distributing them around the local area, Then when people are interested in said item then the price would usually have been negotiated, with a computational solution like mine would mean when the advert is typed up and a photo added then it is advertised automatically and there is no hassle putting up flyers. The price can be automatically set through the use of bidding, or if a seller wants certain price, then the website can automatically decline the offer without getting the seller involved. With a paper based solution when the item has sold the seller would have to go around and remove all of the fliers, which takes time however with a computational solution it can be removed automatically without the hassle of leaving the house.

With a paper based solution the seller is generally limited to the area to the area in which they advertise. The most amount of people who can see the advert tends to be when the ad is placed in a newspaper. Newspapers with selling sections tend to be local newspapers and this massively limits the quantity of people who will see the advert. With a web based solution there is no limitation with the amount of people the ad can reach, it can have national reach or even international thus massively increasing the chances of a sale.

A web based solution gives potential buyers an opportunity to browse for items in the local area or even browse for multiple of the same items to try and get the best deal. With paper solutions and human solutions there is not much opportunity for browsing as there is no competition, it is unlikely that a classifieds section in a newspaper will have many of the same item therefore there is no competition and the buyer would get a worse deal.

Web based selling sites allow aimless browsing, where the buyer is not looking for anything in particular and is just browsing for browsing for browsing sake this leads to purchases that wouldn’t have been made otherwise therefore with a paper based solution there is not such a vast selection of items to choose from which could lead to many lost sales.

\*\*notes to work on\*\*

\*\*explain using computational methods why its suitable – removing manual work

### Who are the stakeholders?

A suitable stakeholder for my project is anyone who has a specific interest in something such as a hobby or has some specialised items that are no longer needed, the potential audience for something like this is rather large as most people have a hobby or interest. Another suitable stakeholder for my project is someone who has access to a large amount of people, such as someone who runs a facebook group, a company or maybe even a school. Anyone should be able to set a platform up for people with similar interests to sell items.

My client runs a Parrot group on Facebook with a little over 3700 members. The Facebook group is for people to post photos, ask questions and interact with other people who have parrots. Naturally this ends up with people posting things they no longer want, whether that be the birds themselves, cages, toys, seed etc etc. however with they amount of posts that get put on the facebook group daily things get buried and no one sees them. Which massively limits the audience of said advert.

I intend to work very closely with my client, I also would like to work closely with some of the clients potential users to get ideas and feedback from the people who would use it the most. I will keep them all informed of progress and work with them and their needs to ensure all of the requirements are met. Any issues or uncertainties will be discussed with my end user and/or client to make sure that I am creating a suitable solution.

Before I begin work on my project I will gather as much information as I can from the client and end user to ensure I have a suitable understanding of what they would like. I assume I will be in regular contact throughout the creation of my project to gather extra information as and when I need it however I hope to keep this to a minimum by having an understanding of their needs and what they would like before undertaking the project. By discussing the solution extensively with the client and end users prior to development I hope that any additional features may be thought of during this process, however it is likely that a new requirement or a change to a current requirement will occur during the development and I intend to add or change when necessary as long as it is feasible to do so. Naturally nearing completion of the project it will not be possible to add or change the requirements and I will explain this to my client should this happen.

There is a variety of information I would like from both the end user and the client as it will massively aid in development and my client will have a different view point than the end user will therefore I would like to work with both closely to create a suitable solution.

What I would like from my client:

1. What would they like it to look like?
   1. Colour schemes
   2. Layout
2. How should it work?
   1. Users
   2. Payment
   3. Any extra features
      1. Maps?
      2. Instant messenger
3. Confirming it is a website they would like
   1. Checking what devices they would like it to be used on
4. Feedback during the projects development

What I would like from my end user:

1. What would they like it to look like?
   1. Colour scheme
   2. Layout
2. Features
   1. What features would make it easy to use
3. Feedback during the projects development
4. To conduct some beta testing in the latter stages of development.

I intend to get all this information through the use of interviews and/or email , I hope to get feedback on the project as I go to keep me on track and stop me from just going off on a tangent and doing my own thing. This will ensure that the end product is one that will meet the clients needs.

I would like the end user to conduct a beta test on my final solution as I can see how a user would interact with it and how I can improve it to make it more user friendly. It also means I can find the majority of bugs that may show themselves in normal use which I may not have come across.

## Research for the problem

### Contact with stakeholder

#### Initial email contact

#### Interview one - client

##### Interview plan – what would I like to know?

What is their problem?

What is the current solution?

What is wrong with the current solution?

What is it you would like?

What features would be beneficial?

How many items would you imagine would be for sale at any time?

Would you like the site to be able to viewed by everyone or just your members?

Any particular payment methods?

What devices would it be used on?

Anything else that might be useful to me?

##### Interview transcript

##### 

##### Interview analysis - What do I now know, what is my understanding of the problem

#### Interview two

##### Interview plan – what do I need to know?

##### Interview transcript

##### Interview analysis - What do I now know, what is my understanding of the problem

#### Interview three

##### Interview plan – what do I need to know?

##### Interview transcript

##### Interview analysis - What do I now know, what is my understanding of the problem

#### Conclusion of the interviews

##### What is it end user wants?

##### What else can I add?

##### How can I implement these?

### Comparison with other solutions

#### Solution 1:

#### Solution 2:

#### Solution 3:

### Analysis of Research

#### Essential Features

#### Non Essential Features – time permitting

#### Avoidable Features

#### Limitations of my solution