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A level – Computer Science

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# Analysis

## The problem

### What is the problem?

### Factors 🡪 time cost etc, focus on this less of other solutions

### Explain how these factors require a computer and are specified

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. 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.

## Computational methods

A computational approach is ideal for this problem as it takes the majority of the work out of it that would otherwise have to be done by a person. 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 paper solution currently has no solution to bidding, the real world solution to this is an auction house, and however they take fees and are inconvenient as they require you to leave the house to go to an auction house. With a web based solution bidding can be completed from home with little to no cost to the buyer or seller.

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 computational methods- time consuming for a person, pad out explanations with why computers necessary compared to written

## Stakeholders

## Research

## Essential features

## Limitations

## Success criteria