D1 - Analyse costs and benefits

Introduction

In this report, I will analyse the full costs and benefits of the plumbing job. This will contain detailed information on each cost and benefits of the program. I will also conclude and give my opinion on these benefits and costs of the plumbing program.

Cost

-Development Cost

Development cost is usually what gets the whole company going. The start price determines what is needed for the start price. As the current system is all-manual, we are going to change all of it to digital. This will charge a rate that will make it easier for the plumber and everybody else who uses it. An upgrade in development will make sure the devices are run faster, efficient and much easier. Getting the latest gear will get more features on the new system. For example, if you compare the new Windows 8 to Windows 7, they are many differences of each. Only this section follows up on getting/upgrading equipment. They are other cost, which the user needs to focus on.

-Stock Cost

Stock cost needs to be maintained day in and out for the company to run. These stock costs are the output, but they are necessary for the user because they need to sell these that they have brought. For this program, I will need to purchase any excess equipment that I will be using for the company to sell. These items could include the following: copper pipes, chrome pipes, plastic pipes and many more that a plumber uses to sell. As any organisation, they will need to have minimum or maximum stock that is enough for the company to sell. Stock is also needed for the employees to run the system and business. In order for the program to work and run, they need to have stock for it to work.

-Equipment

The equipment that is needed for this company to continue this project. I am only getting these new equipment to make it easier for the new user to use. The equipment that is needed is the following:

<u>Hardware</u>

-Windows 8

Windows 8 is used for this company because the latest operating system offers always the new features and faster than before. Obviously, the user needs to get used to it if the is not used to the system. However, having new features for this would be a benefit. The features that Windows 8 has the new start screen, new security e.g. picture password, and new games within the system that the user can download. In addition, the obvious feature is it is much faster.

-Computer (Dell)

It is important, which company the user purchases. If I recommend him an unknown company, the user would not know what to do for or how to operate it. A familiar company has features that makes it easier for the user to deal with. For example, if the user has any hardware problems, the user can go on the official Dell site and fix it. He has a computer, but I want to get a new one and this would cost around **£500.**

-USB

The main reason I recommended this is because for backup. As I have stated before, Norton does backup for you, but it is important to carry an external storage device to do your work anywhere and for security reasons. Security reasons could be the main reason. This would cost around £10 for a 32GB USB. It depends, which one they are going to use, but the more, the better.

-Dell Printer

A printer is used, because if the user needs to print out anything, he can print it out. The cost of the Dell printer could be around £200 or more. It could be more depending on, which printer is necessary. However, I think the all-in-one printer is the best. It has a long-term benefit and the ink would need to be monitored.

Software

-Microsoft Office 2010

As he does not have this system, I will recommend him to purchase this. Office includes several of programs within for it to be suitable. Microsoft Office 2010 is used for this system because if any document that he needs to complete, he will need to use Microsoft Word for it to be complete. Excel could be used for him to be organised. For example, he can create a spreadsheet of how he is doing for himself. Many of the other program could be used for several of reasons and it is important he has this software. Having Microsoft Office would be only one time purchase, but depending on how many computers, you would have to buy it for each to complete any work. One would cost around £100.

-Microsoft Visual Studio 2010

Microsoft Visual Studio 2010 is used to make the actual program. All the codes will have to be filled in to make it. Maintaining the program will be important as well. Therefore, any mistakes and errors the user finds for the user, he will need to use this program to maintain it or erase any errors. This would cost around £100 or more.

-Norton Anti-Virus 2013

As any other computers, anti-virus is needed for any company. Being secure as a company is important. This is because if any malware get into the system, he would need to scan the system to get rid of it. Any PC needs to be secure to protect his files. Having backup would be sorted out as well. If anything happens to the files, backup files would be there. For example, if anyone else deletes the program, the user has a backup program file that he can use. This would cost around £60 per year to stay protected.

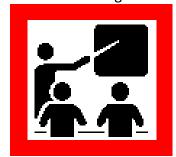
Overall costs

Equipment	Price (£)	
Computer/s	£500	
Software	£260	
External devices: printer/s and USB	£210	
Installation	£100	
Daily cleaning and monitoring computer/s	£300	
Security	£200	
Total Costs:		
£1370		

Training

Training any employee takes time to do. They are two choices that I have. Either sending out the employee on training, which costs a lot, or training them on the spot. I will choose to send them out to train. They will gain more qualification if they are sent out. Sending them

out is professional and it will take time for the company to do either way, especially working with codes. As stated before, I will hire an expert that will move the company forward for this moment. If any of the other four do not have the expected level, we could send them out or hire any other. This will take time, but the program that will be made will be properly. Another solution could be to send them out before we start the whole process. It will be ideal and not time wasting.



Security

Securing the network is one of the biggest factors that needs to be maintained out of the entire network, not mentally (within the computer), but physically. The user can use many software's that the user can use to protect the inner layer of the network. For example, if any malware enter the network, the anti-virus would need to act fast enough for the malware not to make damage. Essentially, the anti-virus removes it and removes any highly virus that enters the user. In addition, if any person is trying to enter the network, it is blocked, as there is a password for the user to enter. Without the unique password, the user cannot enter the password. This would cost around £200 for it to be secure.



Legal Issues

Data Protection Act 1998-

This act was introduced in the 1998s for businesses or any organisation that deals with information, that transfer data needs to be fairly and lawfully processed. This law was set for every employee as this is vital that the employee's vital information cannot be reach to anyone. Only certain information is taken, to ensure the safety of the employee is harmless. It is supposed to be secure so nobody can get hold of the information. Data has to be confirmed that the data is accurate. This links to my suit business, because certain employee's information cannot be held with another functional area/employee. For example, if the any department have all the data for the employees another department asks information about details about the employee. They will give the basics; name, how much they get. Note that that was an example. They can't give anything else. If the data protection act is misused, they will either get fined, prosecuted. Others can get hold of this vital information and can do anything with it. They will get fined as they have not followed this legislation that was set.

Computer Misuse Act 1990-

This legislation was introduced in the 1990s for businesses or any organisation that deals with information, to treat and not misuse information that they provide. For example in my suits business, finance department will deal with PCs which they will be provided usernames and passwords for the computer. This links to my business, because data will need to be secure. If people get access to the data, they might delete it and misuse it. If you get access to the information, it's committing a crime. This will be needed in a business, because if another employee gets hold of a piece of information that is not relevant to their needs, they will be breaking the law. Some examples of misusing information can be: hacking to another person's account or material, computer fraud, physically taking someone's information without permission. According to the link provided below in the reference, if a person breaks this law they could go to prison up to 12 months/ or obtained a fine. These can be some of the issues depending on how high level of committed crime was committed.

Benefits

Customer service

Customer service means how the employee treats another the customer. This could be in a bad way or a good way. Obviously, the customers want to be treated and fulfilled the right way. This company needs to remember that the whole point of it is to make the customer happy. To gain customer loyalty, you need to ask them of what they want. The main benefit of customer service is that once you keep your customers happy, they will be 'loyal' to you. Remembering this does not cost a penny. You only expect the employee to know that

Is your customer service boosting loyalty?

customer service is important. Lastly, this is a benefit because keeping the customers happy equals to the business being successful. This would be completely free. The manager can only tell them that keeping the customer is important, and they should know this.

Cutting Costs

Cutting costs means removing any unnecessary use of anything that is on for it to go waste. For example, turning off the computer when it is not used; do not eat or drink water near the computer; turn the electricity off when not used; and cleaning up for it not to go messy. They are many more ways of cutting costs, but this will benefit the company financially and physically. Financially, because if you turn down the electricity use, it is more likely the outcome of the bill will be lower than



expected. He could save a lot of money comparing it to when he didn't start it to when he did.

Ease of use

It says it in its name, 'ease of use'. The potential impact that this can do is that new users

can find the easier way to do anything. For example, if you compare Windows XP to Windows 8, they are many changes that they have done to make things simpler. Making everything easy is the fundamental part of using the computer e.g. writing a letter. All you can do is send an email; it would be simpler and easier than waiting for the written letter to get to its destination.



Increasing Sales

Increasing sales is a benefit for the company. Having increase in sales will benefit the company by making more profit for it. This will eventually make the brand much more successful and it will be earning more money for it. To increase sales, it will be around £1000 per year for it to be bigger



Benefit Figures (£)			
Ease of use	£450		
Cutting costs	£700		
Customer Service	£1000		
Increasing Sales	£1000		
Total Costs: £3150			

Conclusion

After doing these calculations, it gives me a roughly estimate of how much I will need to spend to get this software running. As it is not as big software, it would not be spent big money on it. Various softwares can be used for this task. Once the program is done, the main aim is for the plumber to run is business efficiently without any errors. They will be no longer any manual system as this is messier and papers can be lost or hard to find. Finding these orders on a computerised copy is easy and another aim for this company is to find it easier as a whole. Making it easier for the plumber would be efficient and it would run much faster whilst more sales would be purchased. The total cost for the company to pay us back would be around £1370. A time would be recommend for the company to pay it back.

To remember, I work for Dull as a junior software developer in London. The money would be paid back instantly or monthly payments. I am helping this company to erase any errors for the current manual system by changing to computerise the system. The benefit costs is a different matter. The business could save these costs, as it is a rough estimate.

Reference

- http://tellemworldwide.files.wordpress.com/2011/12/380x300_graph.jpg
- http://en.wikipedia.org/wiki/Customer service
- http://www.seattlesteam.com/newsletters/images/10-12-cut-costs.jpg

M2 - Alternative Solutions

By Usman Basharat

Unit 11 – Software Analysis and Design

S1300173

Introduction

• For this presentation, I will define 'Off the shelf' software and bespoke system. I will name the advantage and disadvantage for each of them. Lastly, I will compare both of them.





'Off the shelf' Software

• 'Off the shelf' software is a software that is 'readymade'. This means that all the programming, logo, design is complete. All you need to do is go to the shop and purchase it and you can use it already. Some examples of 'Off the shelf' software is Microsoft Office, Norton, Visual Basics and many more. They are many programmes that are 'readymade'. In addition, they are used in schools, offices, home, and any place that you can think of.

Off-The-Shelf Software

Advantage

- Easy to use
- No time needed
- Cost is cheap depending on which version and software you want
- Any **errors** can be erased by contacting the company for issues on the program
- Sharing files is easy

Disadvantage

- Some programmes are expensive e.g. Adobe Photoshop costs above £200.
- If the user is not similar with the software, he/she needs to learn how to use it.
- Some facilities that an average user uses is 10%, the other they may not know. Some features are hard to use on some programmes.
- As it is readymade, you may need to make changes to the programme to make it easy for the candidate to use.

"Bespoke software can take you where off-the-shelf cannot. It will, by definition, be a perfect match to your needs, and it can change and grow with you."

Bespoke System

• 'Bespoke' means it is made by itself. Bespoke system is started from the bottom and it makes it's way up. This means the user has to follow each step by planning, analysing, installing, and maintaining it. Whatever you want for the system, you can change it because it is designing by you. A person cannot create it himself. He needs a team for it to create a bespoke system. They all needs to participate, know what their aim is to do and follow the steps of it.

Advantage

- **Flexible** you can change the way want it to be. Even specific coding and the layout.
- **Unique** it could be very different to the other software's that is out there. More programmes are the same of another and they can make it different to equal more profit for the organisation.
- As you are the 'owner', you can erase **errors** for any to come.
- **Better information gathered** they are many companies that have completed this stage. You can ask them and implement or gain ideas for your programme.

Disadvantage

- **Time** you have to take time out day in and out for the programme to be complete. They is a specific process the user/s follow for it to be done.
- Complex it is hard to do if you want to make something big, you need more than one expert in each field to complete it.
- **Quality** the package that is purchased needs to be quality for it to be better long term. They are benefits and drawbacks of each package.
- Even once the programme's complete, you need to **maintain** and **test** the programme for it to erase any forgotten errors.

Comparison

• Having a bespoke system could put at a competitive advantage. More people would want a programme that is unique and you can ask customers of what they want for a new software and use them ideas. This could result in the company making more money than others. However, 'Off the shelf' software does not take time for you to create. You can purchase it whenever you want and you can use it when you want. In addition any errors or help you need, you can ask the companies employees for help. Unlike bespoke, you have to erase the errors yourself.

Reference

- http://www.bcs.org/content/ConWebDoc/2767
- http://www.teach-
 ict.com/gcse computing/ocr/213 software/custom offshelf/miniweb/pg2.

 httm

P4 – Carry out a structured analysis of a specified business process Introduction

In this report, I will be carrying out a structured analysis to gathering information for a requirement specification. This is about a bespoke program for a plumbing job in order to help the business improve the current manual system. I will be producing a questionnaire and document analysis to gather information about this.

Questionnaire

Questionnaires are series of questions that are used to extract information for a particular topic. A questionnaire requires choices to tick off. The customer does not need to write paragraphs. They only tick off e.g. how old are you? \boxtimes **16-20**.

They would be a box beside it, so they tick it off making it easier for everyone.

Advantage

The advantage of using questionnaire is that, in a short amount of time, large amounts of information can be found by using this method. This method is cost effective. Low costs and time would be used compared to others. You can choose who you want to give it out to. Specific audience can be chosen for this method. Any form of research can be used on this method. Having large amounts of information, they can analyse it and compare it later on.

Another benefit is that it is up-to-date.

Disadvantage

The disadvantage of using questionnaire is that there is no way the user is telling the truth. Some people are going to be in a rush when you ask them, they will quickly rush the questionnaire. Enabling your research going to waste. These questions are going to be asked by the person who has created it. Giving it to a random person, who does not have a clue of what you are talking about, is a waste of time.

Questions

What are the reasons for building this new program? The deliverable are the content of t
□ Updating the current system □ Errors □ other reason state here:
How many people use the current system?
□1-10 □10-20 □20+
How much are you willing to spend?
\Box £0 - £500 \Box £500-£1000 \Box £1000+ State here exact amount:
When do you want the program to start?
State here exact date:
 What operating system do you like to use?
☐ Windows ☐ MAC ☐ any other state here:

 What information do you get once get once the calculation is complete? 		
What do you calculate?		
When do you want it to finish?		
Exact date:		
Do the user find the current system safe?		
□Yes □No • Is it user friendly?		
□Yes □No		
• How many receipts you do currently have? $\Box 0-10$ $\Box 10-20$ $\Box 20-30$ $\Box 30+$		
Do you have a computer?		
□Yes □No		

Questionnaire Result

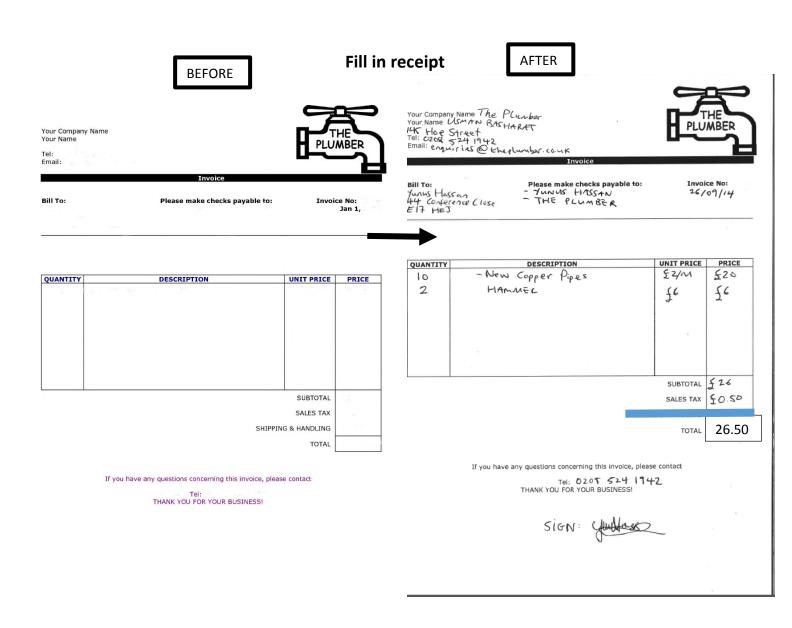
Questions
 What are the reasons for building this new program?
☐ Updating the current system ☐ Errors ☐ other reason state here:
 How many people use the current system? □1-10 □10-20 □20+
 How much are you willing to spend? □£0 - £500 □£500-£1000 □£1000+ State here exact amount:
□£0 - £500 □£500-£1000 □£1000+ State here exact amount:
When do you want the program to start? State here exact date: **A ** **A ** **A ***************
State here exact date: 10/10/14
What operating system do you like to use? ™indows □MAC □any other state here:
 What information do you get once get once the calculation is complete?
The output is the invoice. So, you want it to do
· What do you calculate? Input - what is prochased
·
When do you want it to finish? Exact date:
Do the user find the current system safe?
□Yes □No
Is it user friendly? The state of th
□Yes □No
How many receipts you do currently have? □0-10 □10-20 □20-30 □30+ □0-10 □10-20 □20-30 □30+ □0-10 □10-20 □20-30 □30+ □0-10 □10-20 □20-30 □30+ □0-10 □10-20 □20-30 □30+ □0-10 □10-20 □20-30 □30+ □0-10 □10-20 □20-30 □30+ □0-10 □10-20 □20-30 □30+ □0-10 □10-20 □20-30 □30+ □0-10 □10-20 □20-30 □30+ □0-10 □10-20 □20-30 □30-4 □0-10 □10-20 □20-30 □30-4 □0-10 □10-20 □20-30 □30-4 □0-10 □10-20 □20-30 □30-4 □0-10 □10-20 □20-30 □30-4 □0-10 □10-20 □20-30 □30-4 □0-10 □10-20 □20-30 □30-4 □0-10 □10-20 □20-30 □30-4 □0-10 □10-20 □20-30 □30-4 □0-10 □10-20 □20-30 □30-4 □0-10 □10-20 □20-30 □30-4 □0-10 □30-4
Do you have a computer?

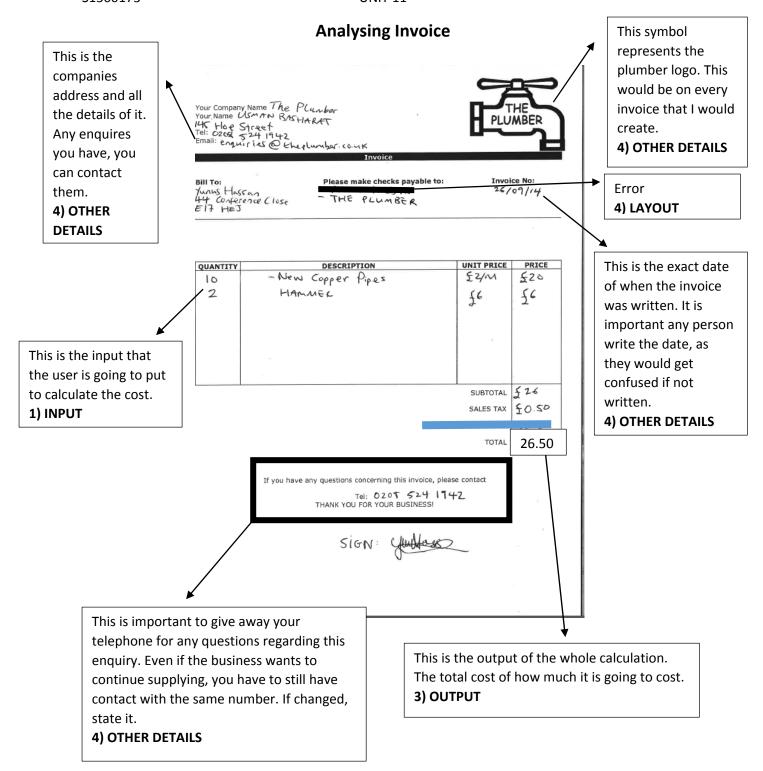
Document Analysis

Document analysis is used to analyse research very detailed. All you do for this is ask for the all the invoices the company has used, and they will produce a detailed document analysis for you. It is not only one counts; they are many of the receipts.

Advantage & Disadvantage

The advantage of using document analysis does numerous of activities for this research method e.g. processing; analysing; and modelling data. Another benefit is that the outcome is usually valid and objective. This means it can usually give an insight of the difficult areas to work on. It is relatively low cost and the detail of the research is immense. Some are very detailed and long. Wherever you go, you can find a PC and do the document analysis on there. The disadvantage of using this method it is very time-consuming.





6) Improvements

The improvements that I could make on this invoice is adding the calculation for the invoice that I've just made. Because this is made manually, I need to add the calculations. Also, I could add another section on the calculations part for the output. Another suggestion that I could make for this is the design. I think that I could add another section for each description on what it is going to do. Another suggestion is to make the 'sign' computerised to make it more professional. It would look better for it.

Design

Your Company Name Your Name

Tel: Email:



Invoice					
Bill To:			Please make checks payable to:	Invoice No:	

QUANTITY	O DESCRIPTION	UNIT PRICE	PRICE
62			±. y
	Calculations	SUBTOTAL	2
		SALES TAX	
	¥	TOTAL	

If you have any questions concerning this invoice, please contact

Tel: THANK YOU FOR YOUR BUSINESS!

Sign:				
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P5 - Produce a requirements specification for a business process

Introduction

In this report, I will be explaining the requirement specification for a business process. In these terms, we will be producing a specification for the plumber. They are a number of aspects that I will be explaining for it.

Background of organisation

For this company, the background information about this is that the plumber works for Dull, as a junior software developer in London. This is my first assignment to complete the errors for the plumber. On this current system, manually, the plumber makes errors.

Scope of the system/Objective

The scope of the system will cover an assignment to develop a bespoke system to calculate a quote for a plumbing job. This is to help the system correct the errors that he currently

has. The errors could contain very small profits, and sometime losing work. The system should make the job quicker and more accurate to get either more profits or not. The system should not create any more errors as there is no point of doing this if they are errors created. Therefore, the objective of this project is to erase the error for the plumber. The picture shows the items that would be needed for the job.

The cost of a job includes these items:

- Labour @ £40 / hr.
- Travel @ £1 / mile
- Plastic pipes @ £2 / m
- · Copper pipes @ £3 / m
- Chrome pipes @ £4 / m

Current System

The current system that the plumber uses is all manual. He does not use a computer for it and does all the calculations by himself. This could complicates calculations and sheets may be lost. There is a risk of losing all the papers that he has; it could be all either burnt or lost.

Timing

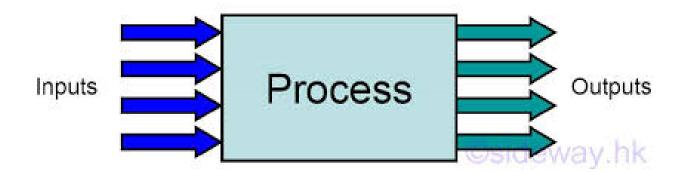
The timing of the project is key for any new system that we are going to produce. For any project, the minimum time it takes to complete a project will be 2 years, depending on how long the system will be. Our system is not that big, e.g. IPhone 6, it will take around 1 years to create. Sometime will be needed for the feasibility study, to analyse the current system and many more for it to be suitable to start. Ideally, it will be around 6 months to do this.



Start Date: 10/10/14 Date finished: 10/10/15

How it works?

Input	Process	Expected Output
The input that is included	The process would be for the	The output would be the
within the system would be for	calculations to be complete.	whole calculations complete. If
the user to include what he	This would erase any errors	the user has a whole list of
needs to calculate. For	that the plumber has.	stuff to complete, all he does is
example, 10 pipes and	The following will include what	to insert it in the system and it
hammer. He can include it to	is included in the process:	would be easier.
the system, it would process it	 Sorting it out – Awny 	The expected outcome is the
and the output would be	order needs be dated	following:
complete.	correctly, and the	 Reports or receipts –
The following will include what	complete calculations	This will be given to the
is included in the input	to go with it.	customer stating what
process:	• <i>Email</i> – The user can	they have purchased.
• Services – The services	keep in track with the	This is ideal for any
will include bookings to	customer, in this case	returns
be made for any	plumber, to update	• Queries: Numbers will
company. In this case,	when the product will	be stated on the
it is for a plumber.	be dispatched.	receipts for any
• Orders – The orders		enquires they have for
will need to the correct		the product or anything
on when they ordered		else.



Employee

it.

Obviously, we need more than one person being expert in this field. For example, if there is any problem that is necessary for this, I would call one of the employees that is expert in the world, and fix it. I will have 5 employees for this task, and they have many roles they need to know. I would want 4 of the employees being a 'general' one. This means they would need to know what each of the topic is. I would want the extra employee being an expert on the one that the other employees does not know about or are weak in. This would benefit the whole company.

Software

They are many softwares he will use and they are the following:

- Microsoft Office 2010
- Microsoft Visual Studio 2010
- Norton Anti-Virus 2013

-Microsoft Office 2010

As he does not have this system, I will recommend him to purchase this. Office includes several of programs within for it to be suitable. Microsoft Office 2010 is used for this system because if any document that he needs to complete, he will need to use Microsoft Word for it to be complete. Excel could be used for him to be organised. For example, he can create a spreadsheet of how he is doing for himself. Many of the other program could be used for several of reasons and it is important he has this software.

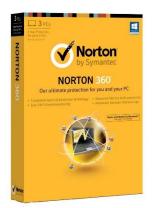
-Microsoft Visual Studio 2010

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-Norton Anti-Virus 2013

As any other computers, anti-virus is needed for any company. Being secure as a company is important. This is because if any malware get into the system, he would need to scan the system to get rid of it. Any PC needs to be secure to protect his files. Having backup would be sorted out as well. If anything happens to the files, backup files would be there. For example, if anyone else deletes the program, the user has a backup program file that he can use.







Hardware

Although the plumber has a computer and knows how to use a computer, he is not familiar with the new softwares. I will teach him how to use it. The hardware that I will include for the computer is the following:

- Windows 8
- Dell
- USB
- Dell Printer

Windows 8

Windows 8 is used for this company because the latest operating system offers always the new features and faster than before. Obviously, the user needs to get used to it if the is not used to the system. However, having new features for this would be a benefit. The features that Windows 8 has the new start screen, new security e.g. picture password, and new games within the system that the user can download. And, the obvious feature is it is much faster.

Dell

It is important, which company the user purchases. If I recommend him an unknown company, the user would not know what to do for or how to operate it. A familiar company has features that makes it easier for the user to deal with. For example, if the user has any hardware problems, the user can go on the official Dell site and fix it.

USB

The main reason I recommended this is because for backup. As I have stated before, Norton does backup for you, but it is important to carry an external storage device to do your work anywhere and for security reasons. Security reasons could be the main reason.

Dell Printer

A printer is used because if the user needs to print out anything, he can print it out.









Program

To make it easier for the user, I will convert the current manual system to a computerised one. To confirm, the user has got a PC to use, but not often. As he is not a daily user of computers, I will give him a sheet of how to maintain the program as they are many benefits of doing this particular task. Once I have made the program, I will make sure that he knows, for sure, to use the program. He will keep a guide on Microsoft Excel of which invoice, input and output is going on in the business to keep it organised.

Any improvements?

Any improvements could be changed if the user asks to. If he feels as if the computer is running in a different format, and does not know how to change it, he can tell me and I can change it for him. Improvements come along once the user has a feel of the program and computer.

Budget

It is important how much the budget is held for the company. The minimum budget that I will be holding for this company will be around £1000. This will cover and if it does not cover it, I will cover the cost of it. For example, the user needs to fill the user's needs. For the needs to be fulfilled, the company needs to add the features of it.

Budget: £1000+

Storage

This is the hardware storage for the computer. 4GB would be enough for the user to cover all his documents. If any problems occur, he could either extend it by using extended storage devices or delete any unnecessary files that he does not need. The user needs a lot of storage because they will be many files he would save and update for it. 4GB would allow doing it several times. For USB, the user can choose any storage if he feels it is necessary. 8GB would be more than enough to save any extended files he can use.

Customer Details

Details for any company is necessary. He can put the details on paper if he feels it is the better option. However, if the user feels that he computerised is better, he can do it by using Microsoft Excel. You can do this by creating subheadings for each of it e.g. address, name, area. Having these details, the plumber can refer back to it repeatedly.

Security

Securing the network is one of the biggest factors that needs to be maintained out of the entire network, not mentally (within the computer), but physically. The user can use many softwares that the user can use to protect the inner layer of the network. For example, if any malware enter the network, the anti-virus would need to act fast enough for the malware not to make damage. Essentially, the anti-virus removes it and removes any highly virus that enters the user. In addition, if any person is trying to enter the network, it is blocked, as there is a password for the user to enter. Without the unique password, the user cannot enter the password.

Reference

http://www.teach-

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