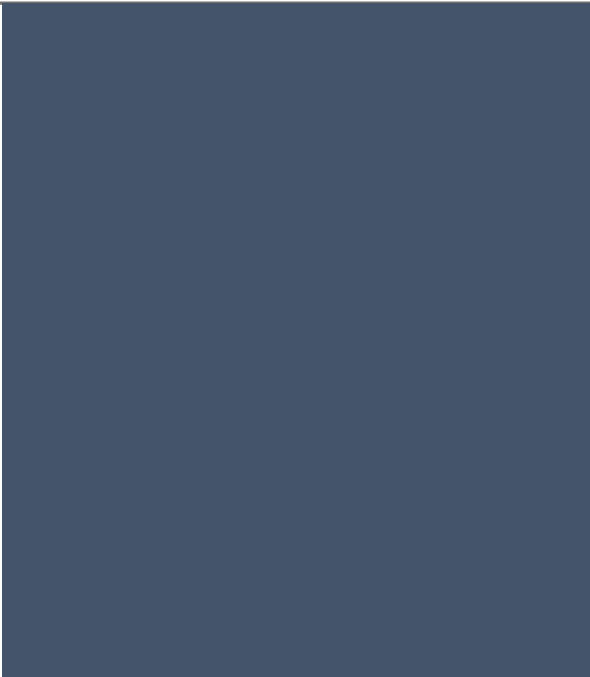




Academic & Employability Skills

ACCC4000

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Table of Contents

<i>1.Introduction.....</i>	<i>2</i>
<i>2.Skill Evaluation.....</i>	<i>2</i>
<i>2.1. Identify and explain the skills.....</i>	<i>2</i>
<i>2.1.1 Programming Languages skills.....</i>	<i>3</i>
<i>2.1.2 Mathematical aptitude.....</i>	<i>3</i>
<i>2.1.3 Problem Solving Skills.....</i>	<i>3</i>
<i>2.1.4 Good organization and time management skills.....</i>	<i>3</i>
<i>2.1.5 Accuracy and attention to details.....</i>	<i>3</i>
<i>2.1.6 Understanding of the new trends.....</i>	<i>4</i>
<i>2.1.7 Team-work skills.....</i>	<i>4</i>
<i>2.1.8 Communication Skills.....</i>	<i>4</i>
<i>2.2. Self-</i> <i>Evaluation.....</i>	<i>4</i>
<i>3.Action Plan.....</i>	<i>5</i>
<i>4.Application.....</i>	<i>6</i>
<i>4.1 Looking after your data.....</i>	<i>6</i>
<i>4.1.1 Local backup.....</i>	<i>6</i>
<i>4.1.2 Cloud Storage.....</i>	<i>6</i>
<i>4.1.3 External Storage.....</i>	<i>7</i>
<i>4.1.4 Possible disasters.....</i>	<i>8</i>
<i>4.1.5 Cryptowall Virus.....</i>	<i>8</i>
<i>4.2 Time management and organization.....</i>	<i>8</i>
<i>5.Conclusion</i>	<i>9</i>
<i>Appendices.....</i>	<i>10</i>
<i>References.....</i>	<i>16</i>

1.Introduction

“For the past 33 years, I have looked in the mirror every morning and asked myself: 'If today were the last day of my life, would I want to do what I am about to do today?' And whenever the answer has been 'No' for too many days in a row, I know I need to change something.” This is one of the famous quotes of Steve Jobs which change my thinking style. I read this quote 2 years ago. On that moment, I was living in Spain and my life had not any challenges and future plans. I had a job which I did not like, I was not happy with my income and the worst think was that there wasn't any chance to improve it. This quote made me think about my life and how to improve it. First think which I did was to give my resignation leather and find another job. Because I did not have any graduated studies was impossible to find a job to like it. Then was when I decided that I must to go to University and, because in Spain is very difficult to do it, I moved to United Kingdom. In less then two months after I read this quote my life was a seriously changed, changes that will help me to get my favourite job – Software Developer.

2.Skills evaluation

2.1 Identify and explain the skills

Like I said in introduction, I would like to become a Software developer. There are four types of developers: system developers, test automation developer, web developer and mobile developer. Usually, the IT student choose only one of them to specialize. My choice is WEB DEVELOPER. Since I was a child, my dream was to create the biggest football database website. So, to become true, I will need the following skill:

- Programming languages (HTML, CSS, JAVASCRIPT, MYSQL, etc.)
- Mathematical aptitude
- Problem solving skills
- Good organization and time management skills
- Accuracy and attention to details
- Understanding of the new trends
- Team-work skills
- Communication skills

2.1.1 Programming Languages skills

Programming language skill is one of the most important skill for any software developer. To create a web site, I will need at least 5 programming languages, for design I will use HTML and CSS, for database MYSQL and for execute operation JAVASCRIPT and PHP. For the moment I have some basics knowledge about HTML, CSS and JAVASCRIPT and I will must to learn about MYSQL and PHP and as well to improve the basic ones.

2.1.2 Mathematical aptitude

Any software developer must to have a high level of mathematic. The big challenge for the developers is to convert the real life in a virtual life, we must to find the way to transform any simple task from daily routine in an understandable code for computers. In the first term of the first year of University I studied “Computational Thinking” module which helped me to improve this skill.

2.1.3 Problem Solving Skills

Because the software developers are coding all the time and because the programming languages are very strict (if you miss to type a “:” or “,” the program will fail) is very high level of probability of mistakes. In the world of software developer is know that they spend only 15-20% in writing code and the rest 80-85% to read the code. Then is very important to write the code in the easiest way possible to reduce the time in find the problems. Because I don’t have too much practice in this world, I spend long enough time in problem solving, but to improve this skill I need only to practice a lot and do mistakes.

2.1.4 Good organization and time management skills

The organization is one of the key factors for software developers. We live in the century of speed. We want to spent less time in doing every single task. All the companies and clients require short deadline for their projects. Then we must to have very good organization skill to reduce the time and money in our projects. I believe that I am very good in organization because during my whole life I had very different jobs and this helped me.

2.1.5 Accuracy and attention to details

Like I said in 2.1.3, the syntax for programming languages is very strict and we must to pay attention at all details when we write the code. All companies or clients require 100% working programs, then our accuracy and attention must to be on high level because if the program will fail we will lose the project and money.

2.1.6 Understanding of the new trends

Nowadays the technology is improving very fast. For a person who graduated on 1995 on IT sector will be very difficult to find job if his level of skills has not improved. A lot of new programming languages or versions of programming languages are updating every year. Then any software developer must to be updated with the new technologies.

2.1.7 Team-work skills

Like you know, the most successful software projects in the world are huge companies. Companies like Apple, Microsoft or Facebook, which work in IT sector, have a huge number of employers and departments. It is indispensable to work in teams. Because I played football more than 12 years, since I was 6 years old, I think that I am a very good team-worker. The football made me to understand which is my role in a team and if I don't do my work properly the team can lose because of me.

2.1.8 Communication Skills

Like a software developer, it is not a must to have a very high level of communication skills as the business people, but we must to understand exactly what the client requires and during all the project we need to communicate with them. Then we need to be able to manage this skill as well. "Academic and Employability Skills" module helped me a lot to improve my communication skills.

2.2. Self-Evaluation

"Kolb's Learning Style Questionnaire" was adapted by Alan Mumford and Peter Honey. The questionnaire has 80 statements and is designed to find your preferred learning style. According with "Kolb's Learning Style Questionnaire" I am a **reflector** person. Like this reveals I prefer to stay "back and ponder experiences and observe them from many different perspective", my "philosophy is to be cautious" and I "collect data, both first hand and from others, and prefer to think about it thoroughly before coming to any conclusion" (*Joy Bancroft, Journal of International Students*).

As well I completed an online learning style questionnaire on <http://www.educationplanner.org/students/self-assessments/learning-styles-quiz.shtml> (more details on Appendix A). According with this questionnaire I am a **tactile** learner and I am a "hands-on" learner who prefers to touch, move, build, or draw what I learn, and I tend to learn better when some type of physical activity is involved.

As both questionnaires reflect I am a practical person which prefer to do physical things (I learn better if I write note than if I read).

3.Action Plan

As I said in skills presentation, I am an organized person. I set up tasks and goals for every day, week, month and year. That means short term goals and long-term goals.

I will start presenting my long-term goals, because this will be the main plan in my life. Actually, my long-term goals started almost 2 years ago, when I decided to become a software developer and this one was:

- Come to United Kingdom✓
- Find a flexible job where I can improve my English✓
- Enroll to University✓
- Find my weaknesses and improve it✓
- Achieve the missing skills for a software developer
- Find a part-time job as software developer and gain experience
- Graduate with good marks
- Start work on my football statistic web site
- Maintain it a high level
- Get married
- Enjoy the life with my family

To become realizable, first step was to come in United Kingdom. Why in United Kingdom? Here is the best place in Europe where is very easy to find job and is not very difficult to enroll to University – two main keys in my plan.

About the short-term plan, I can say that I have different short-term plans. I start every day with a sort-term plan. Same with the beginning of week or months. Because I completed part of my long-term plan, I can say that the sort-term plan, for the next 6 months is:

- Accumulate more information possible on which class
- Prepare for assessments and for exams
- Obtain good marks on the assessments and exams
- Go in holiday
- Prepare for the second term on University
- Improve my programming language (specially Python)

Now, two years late, I almost done half of my long-term plan. I came in United Kingdom, I work for Uber, as a private hire driver, where I can improve my English speaking all the time with people from different cultures and where I am totally flexible. I enrolled to University of Wales Trinity Saint David where I find which are my skills and which skill I will need to become a software developer. I hope that in next 5 years I will complete all the long-term plan.

4.Application

4.1 Looking after your data

According with Cambridge Dictionary the backup is “a copy of information held on a computer that is stored separately from the computer”. Then the backup is the way which help us to prevent lose files and data. We have 3 different way to do backups: local backups, cloud storage and external device.

4.1.1 Local backup

Nowadays, most of the operational system offer as possibility of backup and recovery. This is the local backup. We can save our setting or configuration and if something bad happened we can recovery it. With Recovery function we can access the last backup and all happened after the last backup will be deleted. The local backup doesn't protect our files or data when the device is crashed, it only helps us to save configuration and settings. For example, if my last local backup was on 30th May and today 2nd of June I get infected with a virus, to avoid a factory reset and all my data and configuration lost, I just need to restore the device from the last backup. In this case I will lose all data or settings changes since 30th May until today.

4.1.2 Cloud Storage

The could storages are very popular and useful in our days. It is one of the easiest and cheaper way to backup your files. As you can see in the appendix B the most famous companies are:

- Google (Google Drive -for files, Google Photo- for photos and videos, Google Music-for music)
- Microsoft OneDrive (general storage)
- Dropbox (general storage)
- Spotify (Music)
- Apple iCloud
- Mega

Some of the futures of cloud storage are:

- You can access it anytime and anywhere (while you have a device connected on internet)
- You can get it free or very small price
- Many software's has auto upload function
- We can listen music in more devices without use the device physical memory

We can find as well negative parts on cloud storages:

- Not always is free (sometimes is possible to pay from £20 up to £1200 yearly depending on chosen size)
- It's not 100% safe. Because is online the hackers can attack the servers and stole files and data.
- We can forget our account details and lose the access of the files

4.1.3 External Storage

The external storages are the safest ones because we own them and we connect them on the personal device short time. The risk of attack on these storages is almost null. We can find negative parts as well. For the external storages we must allocate more time for backup. We must copy the files manually and wait until the process is done. We can access these storages only where we keep it or if we want to access it out of house we must carry on with us. Another negative part is their price. The price for 1TB can be from £35 to £150. The worst part on the external storages is that we can total damage them as well.

Types of external storages:

1. Magnetic Storage
 - a. Magnetic tape
 - b. Floppy discs
 - c. External HDD
2. Optical Storage
 - a. CD
 - b. DVD
 - c. Blue-ray
3. Flash memory devices
 - a. Memory card
 - b. Memory stick
 - c. USB drivers

The best way to do a safe backup is to use all three storages. According with Marc Langer in his article “Developing a Data backup strategy” “For many years, tape was the primary medium for backing up data and it remains an effective and affordable method, especially for lower-tier data that is less than mission-critical. It is also the most economical and secure medium for long-term preservation, archival and compliance requirements”. As well is almost impossible to infect these tapes because they are most of the time offline. The worst part of these tapes is the transportation. If a big company with offices around all of the world lose some important data then will take a long time sending the tape and copies of tape to all offices. Until solving the problem they can lose days or even weeks.

To avoid these long delays, we must use as well cloud storages and local storage. Online storages will help as to access the files from many places in same time and faster.

4.1.4 Possible disasters

Our devices are exposed to a high level of disasters:

- Device crash – physical crash, motherboard or processor failure, HDD failure, water damages, fire damages
- Lost or stole
- Software crash – when we use cloud storage, because of any failure the server will become unavailable, we can forget the account details and we cannot access the storage without account details
- Viruses – a lot of viruses can affect our data and files. Viruses like Cryptowall encrypts your files and the attacker will require money for decryption.
- Hackers attacks – hackers always attack the servers to stole information.

4.1.5 Cryptowall Virus (Appendix B, layer 7)

“The Cryptowall is a trojan horse that encrypt files on the compromised computer” (<https://www.symantec.com/security-center/writeup/2014-061923-2824-99>, 26/08/2018). The attackers send the virus by spam emails, malicious ads, compromised websites, etc.

The hackers ask to pay for decryption. In 2015 was one of the biggest Cryptowall attacks, 406,887 attempted Cryptowall infections were examined and the report show that US\$325million went to attackers.

4.2 Time management and organization

Living in London, time management and organization are two big challenges.

In my opinion you can't have a good management without a good organization and reverse. For me the key points for a good timing and organization are short-term goals. If you set up frequently short-term goals that will help you to manage well your time. As well, when you set up the goals you must know if that goals are realizable or not. If you set up impossible goals you will fail in comply it.

Because London is a very busy city and because I study and work full time, my level of stress is enough high. I try to manage my time doing the main tasks firstly and if I done these I spend more time doing another task. As well I plan very strictly every single day.

5.Conclusion

After my first semester on University of Wales Trinity Saint David, I believe that I am able to recognize my weaknesses and strengths. My strengths are: mathematics, good organization and time management and accuracy and attention to details. On the other hand, my main weakness is communication skills. Nowadays, being an extrovert person, to know how to sell your services and present your abilities, can make the difference between a successful person and unsuccessful one. I am planning to improve my communication ability by participate at public events and by reading more because informed people are more confident.

Appendices

Appendix A – Online learning style personal questionnaire



What's Your Learning Style? The Results

Bogdan Halinga's scores:

- Auditory: 10%
- Visual: 25%
- Tactile: 65%

You are a **Tactile** learner! Check out the information below, or [view all of the learning styles](#).

Tactile

If you are a tactile learner, you learn by touching and doing. You understand and remember things through physical movement. You are a "hands-on" learner who prefers to touch, move, build, or draw what you learn, and you tend to learn better when some type of physical activity is involved. You need to be active and take frequent breaks, you often speak with your hands and with gestures, and you may have difficulty sitting still.

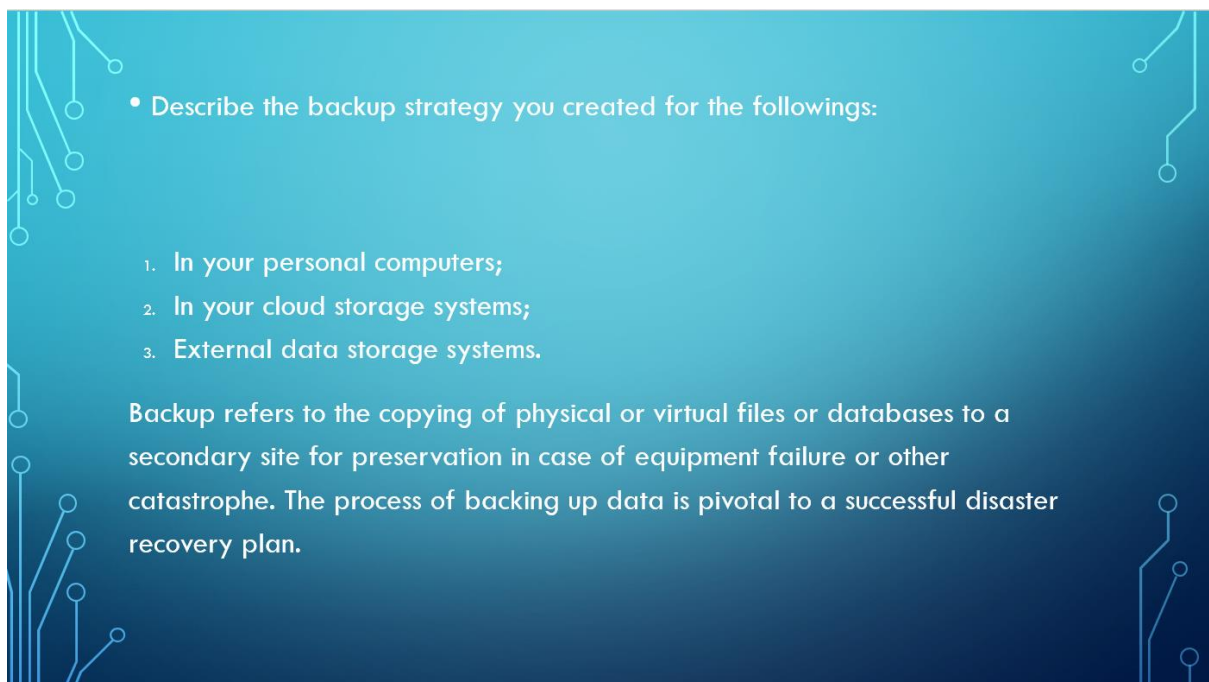
As a tactile learner, you like to take things apart and put things together, and you tend to find reasons to tinker or move around when you become bored. You may be very well coordinated and have good athletic ability. You can easily remember things that were done but may have difficulty remembering what you saw or heard in the process. You often communicate by touching, and you appreciate physically expressed forms of encouragement, such as a pat on the back.

Here are some things that tactile learners like you can do to learn better:

- Participate in activities that involve touching, building, moving, or drawing.
- Do lots of hands-on activities like completing art projects, taking walks, or acting out stories.
- It's **OK** to chew gum, walk around, or rock in a chair while reading or studying.
- Use flashcards and arrange them in groups to show relationships between ideas.
- Trace words with your finger to learn spelling (finger spelling).
- Take frequent breaks during reading or studying periods (frequent, but not long).
- It's **OK** to tap a pencil, shake your foot, or hold on to something while learning.
- Use a computer to reinforce learning through the sense of touch.

Remember that you learn best by **doing**, not just by reading, seeing, or hearing.

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1. IN YOUR PERSONAL COMPUTER:

Most of the devices has the options for backup and recovery. In my personal laptop I do backup every month and every time when I am doing several changes. This backups help me to save my settings and configurations and if any virus affect my laptop I just recovery it and, because of this I don't need to configure all my settings again. I don't use backups for files in the personal computer because if the laptop will crash I will lost them.

2. IN YOUR CLOUD STORAGE SYSTEMS:

The cloud storage is the newest one in backups world. I think that cloud storage is the most useful one. Many software are helping us to auto upload our recent taken photos or videos, to access our files anywhere in the world just connecting to internet and listen our music from more devices without using physical memory. The most famous companies are: DropBox, Google (Google Drive, Google Photo, Google Music) and Microsoft (OneDrive).

For the cloud storage are 2 negative parts:

- Sometimes is possible to pay for it
- If any hacker will access the server of cloud storage our files are not 100% safe

I use most cloud storages. For pictures I use Google Photos because the give me unlimited storage, for music I use Google Music because they give me 50 Gb free and this is more then enough for me, for documents I use OneDrive and Google Drive to make sure that I don't lose them.

3. EXTERNAL DATA STORAGE SYSTEMS:

External Data storage is the safest way to save your files. It is not easy like on cloud storage (auto upload). We must to connect the second device to out personal computer to copy it manually and wait until the process is done. If the size of file is more then 5 Gb then the waiting time will be more then 10 minutes. The negative part of external storage is that is not very fast, we must to pay for it and the external devices can crash as well.

I use an external HDD to save my files, but I have another copy of them in the cloud storage. Usually I save here my pictures and video because if I will lost them will be impossible to recovery while if I will lost my music I can easily download it again.

WHAT ARE THE POTENTIAL DISASTERS?

- The potential disasters are:
- Computer crash (physical crash, e.g. hard failure, water or fire)
- Software Crash (operational system fails or different errors)
- Viruses (Trajan, Cryptowall)
- Hackers
- Forgotten of details account (online storage)

CRYPTOWALL VIRUS

Cryptowall is a Trojan horse that encrypts files on the compromised computer. It then asks the user to pay to have the files decrypted.

The threat typically arrives on the affected computer through spam emails, exploit kits hosted through malicious ads or compromised sites, or other malware.

Once the Trojan is executed on the compromised computer, it creates a number of registry entries to store the path of the encrypted files and run every time the computer restarts. It encrypts files with particular extensions on the computer and creates additional files with instructions on how to obtain the decryption key.

This threat family attempts to convince the user to pay money in order to get the key to unlock their files. It uses a variety of different techniques in order to encourage the user to pay the ransom.

WHAT ARE THE POTENTIAL THREATS OF CRYPTOWALL VIRUS UPON YOUR DATA?

There are several different methods to spread Cryptowall and infect devices:

- **Phishing Email:** Cryptowall is most often triggered by the end user via a phishing email. Phishing emails try to trick users into clicking a link which downloads malware onto their computer.
- **Exploit Kits:** The next most common attack vector is as part of an exploit kit, which take advantage of security vulnerabilities to deploy malware needed to execute the attack. Known vulnerabilities can be in the operating system, in applications you use, or in websites you visit, like WordPress.
- **Malicious Ads:** Cybercriminals purchase or hack internet advertisements to deliver malware to you through your browser. Hacked ads often try to run JavaScript in your browser to download the malware without you noticing.

HOW TO PROTECT AGAINST CRYPTOWALL?

1. Keep your computer patched and up to date
2. Use an anti-virus scanner
3. Use a firewall
4. Don't click the links.
5. Practice safe browsing habits.
6. Back up your files.

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