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ASSIGNMENT 4

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INTRODUCTION TO INFO SYSTEMS

The business under study here is called Worldwide Sports (WWS). It is a business that distributes sports equipment across Canada and is looking to expand worldwide (as the name implies). With the help of the new systems that will be implemented, sports equipment can be purchased by individuals and by bigger entities e.g. schools. A mobile application has also been developed for the company in order to make purchasing equipment easier. Its mode of operation is determined by the kind of transaction that is bring carried e.g. it will work different for a single customer buying equipment and someone ordering in large amounts for a school or a small entity. In a company like Worldwide sports, lots of inventory and order management is rapidly taking place. In order to manage all this the best and up to date Systems must be in place. The new systems that are to be put in place will boost productivity and speed both on the customer side of operations as well as developers’ side. For the customer information about products, their specifications and their availability will be acquired in real time and come back accurate. Also, for the developer, the new systems will assist in making inventory updates and keeping track of what products are in stock and what isn’t.

This company will make use of laptops over computers for many reasons which will be glanced upon but generally for portability, speed, reliability, portability etc. With laptops developers and workers can work from anywhere with the condition they can access the servers. They can also access inventory information at ease, especially with the business being so rapid.

Operating system: This is the core of any system which keeps everything working and together. It essentially communicates with the computers hardware to carry out processes within the system. For this company a **64-bit operating system** is what will be used because it gives way for a lot of multitasking. The user can easily switch between various applications without the system hanging. In the area of customer service, they can attend to customers and at the same time keep track of inventory and stock.

**Hardware components:**

Processor: A processor is made up of hardware components that deliver information, allowing the computer to complete the tasks requested of it. Essentially it also regulates the overall speed of your computer, if you have processor that doesn’t process information quickly enough naturally the system will be slow. The processor we will be making use of is the **intel core i7**, which essentially runs faster than an i5 and will work better for multitasking, media-editing, creation tasks and can take on large amounts of work. It will also work hand in hand with the 64-bit operating system.

Chipset: A chipset is a group of interdependent chips or integrated circuits that control the flow of data between the central processing unit and external devices, these chips are generally found in the motherboard. It includes a circuit board layout/functionality and circuit mechanisms. A CPU has different chipsets depending on its architecture, **Intel HM175 express chipset** is the chipset that will be used in our systems. This chipset when put to work alongside the intel core I7 processor its mages the flow of information and other components very smoothly

Memory: When owning a business like this it is strongly advised to have systems that can hold ampule amount of data, and with these systems the memory capacity is **16GB (gigabyte) RAM**. This memory space is large enough to contain all data needed and t the same time still work as its own system smoothly. If by any chance more information is needed to be stored, hard drives can be fixed inside it with convenience.

Display: The display of a system is essentially its output surface that shows text and images to whoever is using it. The systems display specification include **15.6”16.9 full HD LCD and LED display**

Camera: The camera that will be used in our systems will be **a 720p web camera**, although not very essential for the business we will be running as there will be no need to have video calls. At some point it may come in handy Incise a head of department or supervisor wants to have a quick word with an employee whom is at quite a distance then in that case it will be considered useful, But for the most part is just “nice to have”.

Keyboard: The keyboard has all the requirements needed for it to perform its task, but this keyboard has a special feature of lighting lighting of the keyboard can also be regulated to see better in case the environment in which one is working is poorly lighted. Its light’s up if you want to work in low light without having trouble looking for specific key stroke. and it is 20million keystroke rated. There is also a touchpad in the case where you don’t have an external mouse you can still navigate the monitor easily.

Bluetooth: The Bluetooth model that you can will be making use of is the **4.1 software** which gives way for easy connection to other Bluetooth devices in case information needs to be passed quickly. This will also come in handy if at any point the servers are down then info can easily be transmitted from one user to another without having to go through the long wait

Card reader: This system apart from having USB ports that can be used to connect hard drives it also has card reader drives in case for any reason at all information is stored on an SD card (a small chip which can be used or external storage just like a usb). This feature is not popular among systems, so it is an advantage as there is yet another avenue for data to be stored

Touch pad: this is basically a substitute mouse in case a normal mouse is not available, the space just above the keys controls the cursor and is used for movement across the computer screen .the two earlier mentioned keys, one for clicking on icons and the other for bringing out extra options for whatever icon the cursor is on.

I/O Ports: This system comes with three USB ports which allow for external devices to be connected and assist the system with operations or storage. It also comes with a HDMI port which helps in cases where presentations must be made, and the system can just be connected to a projector. Space for LAN is also available for a cable which makes internet service faster to be connected. There are a lot of ports available for helpful devices.

**Software components:**

Utility software: It comes with adequate software like antivirus, spyware detection, firewall and much more to protect its data from being lost and from viruses that may affect the system. It also comes with File backup software and data compression software in order to ensure that if data gets corrupted then it can still be recovered through backups

System Software: It makes use of the Windows 10 which has a simple interface and can be used by anyone. It is also very easy to learn and navigate

Application Software: Office 2016 is the application software that it comes with which consists of applications like word, excel, outlook etc. This version of all these applications unlike previous versions automatically save changes made to files and are also very good in their respective areas of use.

**WEB SESSION:**

* Now that the device has been acquired. Once the system booted, using the simple interface of a windows 10 system software, navigation to the search engine (Mozilla Firefox, Chrome etc) should be simple.
* This navigation can be done using the track pad on the laptop to control the cursor and click on the application
* Once the search engine has been accessed it shows all the information on the site
* The website is identified by the URL (universal resources locator) which is unique to each site. the actual address is determined from a domain server over the internet because for a particular site it is difficult for a person to remember the whole URLs
* Now the searched is send a request by the web browser to the computer hosting the contents of the website for the permission and data to view the website.
* The content of the web pages is written with Computer languages such as JAVASCRIPT, PHP, HTML etc.
* When the request is received by the client, it uses as a TCP (Transmission Control Protocol) which break down the information into smaller parts called data packets.
* Now they are transferred to the local internet service provider and via them they reach their IP address. Once again, the TCP is used to take the proper sequence of a data packet into information without losing any packets in a proper manner which then shown on the web browser of that person.

**Question 2**

What is E-commerce?

E-commerce also known as electronic commerce, refers to the buying and selling of goods or services using the internet, and the transfer of money and data to execute these transactions. Ecommerce is often used to refer to the sale of physical products online, but it can also describe any kind of commercial transaction that is facilitated through the internet. It also refers to all aspects of operating an online business, it refers specifically to the transaction of goods and services electronically.

What is the internet?

The internet is the global system of interconnected computer networks that use internet protocols (TCP/IP) to link devices worldwide. It is a network of networks that consist of private, public, academic, business, and government networks of local to global scope, linked by a broad array of electronic, wireless and optical networking technologies. Everyone who wants to participate in e-commerce must have access to the internet as it contains the network needed to connect everybody and everything needed to carry out e-commerce transactions.

What is the world wide web?

The World Wide Web, usually called the Web for short is a collection of different websites you can access through the Internet. A website is made up of related text, images, and other resources. Websites can resemble other forms of media like newspaper articles or television programs or they can be interactive in a way that's unique to computers. This facilitates e-commerce by being the platform in which it takes place. Everyone who wants to participate in e-commerce must have access to the world wide web.

**Categories of e-commerce**

**BUSINESS-TO-BUSINESS (B2B)**

B2B e-commerce refers to all electronic transactions of goods and sales that are conducted between two companies. This type of e-commerce typically explains the relationship between the producers of a product and the wholesalers who advertise the product for purchase to consumers. Sometimes this allows wholesalers to stay ahead of their competition**.**

**BUSINESS-TO-CONSUMER (B2C)**

Perhaps the most common form of e-commerce, B2C e-commerce deals with electronic business relationships between businesses and consumers. Many people enjoy this avenue of e-commerce because it allows them to shop around for the best prices, read customer reviews and often find different products that they wouldn’t otherwise be exposed to in the retail world. This e-commerce category also enables businesses to develop a more personalized relationship with their customers.

**CONSUMER-TO-CONSUMER (C2C)**

This level of e-commerce encompasses all electronic transactions that take place between consumers. Generally, these transactions are provided by online platforms (such as PayPal), but often are conducted using social media networks (Facebook marketplace) and websites (Craigslist).

**CONSUMER-TO-BUSINESS (C2B)**

Not the most traditional form of e-commerce, C2B e-commerce is when a consumer makes their services or products available for companies to purchase. An example of this would be a graphic designer customizing a company logo or a photographer taking photos for an e-commerce website.

**BUSINESS-TO-ADMINISTRATION (B2A)**

This e-commerce category refers to all transactions between companies and public administration. This is an area that involves many services, particularly in areas such as social security, employment and legal documents.

**CONSUMER-TO-ADMINISTRATION (C2A)**

Another popular e-commerce category, C2A e-commerce encompasses all electronic transactions between individuals and public administration. Examples of this include taxes (filing tax returns) and health (scheduling an appointment using an online service**.**

The best out of all for your business is the B2C

**Web presence**

**Front End**: All this consists of is what the user will see and control. This includes the icons, forms to fill out, images and so on. Mainly what will be focused on is information arrangement and whatever interactions between the user and the transaction.

**Back End**: This portion is not associated with the users but only the developers. This on the other hand consists of what’s going on behind the scenes, meaning the code that is written, this code is usually written in JAVASCRIPT, PHP, HTML, CSS. It also makes use of TPS and MIS systems.

**E-commerce business strategy**

Getting domain name: This is the acquisition of a unique name for the website (. Com, .ca etc.). Normally you must pay to get one of these, either monthly or yearly. You must make sure it is pertaining to the organization.

Dedicated servers: There are two options to choose from concerning web servers, either our own sever or a hosting server. If we do get our own server, we need to connect it to the internet through a dedicated line. Afterwards proper software would be needed to store and manage the data. It is good to have your own sever but it is difficult to manage and requires a lot of experienced programs.

Developing a site: The site will be developed using set `of tools called an IDE which basically sets the instructions which basically tells the application what to do. The IDE’s mainly used are JAVASCRIPT and PHP, are used to make the codes access the internet they serve as the connector and are also used in designing a bit tools like CSS are used in designing solely and HTML is a markup language that supports actual computer language.an experienced programmer would be needed for this process.

Host service programs: this makes things easier instead of bothering to create one we can use the common ones and just pay for their server his is good but doesn’t give full control over our data base and we have a split server control

Method to collect Payment: The process would be to apply under a bank which you transact with so that they won’t be deductibles after every single transaction but they would collect the deductibles based on how much each is made and they would be an agreed percentage the bank makes off every specific amount.

Methods to Mitigate typical security threats: Every business now it would be highly un-wise to have a system running without an automated backup system and firewall set up. But still the firewall doesn’t prevent “break-in” from hackers which can disrupt businesses it is advisable to do a system maintenance as frequently as you can so this can prevent some threats.

**References**

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