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Week four Individual assignment

The security challenges of the Internet are small and grate at the same time. One of the security challenges of the Internet is determining who someone is when doing banking, chatting, gamming, and using a credit card. The current way the Internet handles this security problem is by using a user name and a password. The one problem with this is a computer savvy person, a hacker, can capture this information and now the hacker has access to the account with out the user knowledge. There are several ways a user can prevent a hacker from gaining access to the users account. The best way is to have a password a minimum of 20 characters long and have numbers and special characters in the password. This password must also be change on a regular time frame depending on how secure a user wishes to make the account. The shorter the time frame between having a new password makes the account more secure. Another way to make the Internet more secure is to start using what is called a Biological Key. By using a Biological Key an Internet user must supply one thing from there person say a finger print, an eye scan, a blood sample, or a piece of hair. Now the possibility and likely hood of a user supplying all the above is very slim. The cost of implementing a Biological Key is not cheep. Even with a Biological Key one can not be confident the information is correct or it was captured by a hacker and used by the hacker to get into the users information. The only way that I am aware of to pass information between two points on the Internet and to be absolutely sure who the two parties are is by using a high level encryption. The only way this can be done is to have user A public key hand carried to user B and user B public key hand carried to user A. Now the two users can pass encrypted information over

the Internet and uses the pubic key to decrypt the information from the other user. This method works well if just two users want to pass information back and forth without anyone knowing what the information is. The down side of this is a user is not very likely to go through the same hassle with a bank or with a credit card agency.

The regulatory challenges of the Internet are not a small matter. The number one issue in today's Internet is how to control the Internet. The biggest problem with this is there is no one country or origination today who can legally control the Internet. The reason for this is the Internet is a world community and only an origination who has representation by every county can pass laws to control the Internet. Unfortunately today there is no such origination. What we have today is each country trying to pass laws to control the whole Internet or at least there small part of it but the problem with this is the nature of the Internet. When country A passes a law saying chat rooms are illegal and are punishable by prison time county A can only apply this law to the people in its own country and county A has no authority to enforce this law onto other countries. Also it is physically impossible for country A to stop the people who live in county A from going to a chat room. All country A can do is take legal action against companies and people it finds having a chat room or using a chat room.

The productivity challenge for the people using the Internet is when someone gets onto the Internet and starts to look for information it is simple to get side tracked and going down a path in the wrong direction. The other challenge in using the Internet for productivity is perception of what you see is correct and true and not someone putting out false information. A good rule of thumb to use is if the same information can be found at three different web sites the information probably is correct and true.

There can be some ethical issues on the Internet only because the Internet is world community and not the property of any one country or origination. The only time an ethical issue

will come up is when a person from one country has a different idea of ethics. In today's Internet and in the world community known as the Internet ethical issues can start flam wares between users and even come to start real wares because of a difference in ethics. In order for things not to get out of had on the Internet and in the e-mail it is a good idea for a user to keep a open mind in the information one sees on the Internet and understand that different cultures have different ideas of what is ethical.

Databases and how to improve them at Sierra College

There are three types of databases used at Sierra College and these are Oracle SQL, VMS SQL, Microsoft Access, flat files. The Oracle SQL database is used to keep track of computer problems, it is also used as a temporary storage for the information for student to access through an application called MySierra, and it is used to hold information on new student during the online application process. The VAX SQL is used to hold all of the school records: student name, student address, student Social Security Number, student identification number, student phone numbers, students birth day, classes a student has taken along with the grade and semester, list of all the current classes and a short description of the class, teachers name, teachers address, teachers phone, teachers Social Security Number, teachers hire date, teachers birth day. The Microsoft Access application is used by many users on campus to keep track of information the user thinks is important to keeping track of for themselves and for the job duties the user has. The International Student Reprehensive keeps track of all the international students on campus both present and past. Some teachers on campus use Microsoft Access to keep track of the current students and there past students along with the coursework and grades for each student. All of the labs on campus keep track of when a student comes in to work and when a student leaves because the college can collect money for the time a student spends working in a lab. This record of student times in and student times out is kept in a flat file on each department server.

Currently the number one issue at Sierra College is we have way too much student information spread out over the college. With the new laws past this year making Sierra College responsible to inform people when a system was hacked into and telling people that there personal

information my have been taken. Currently there is a plan in the works to remove all of the redundant private Microsoft Access student records that my not even be correct and place them all onto one system with the people who need access granted access to the database. There is also talk about a policy being created stating that no user on campus my create there own database having any student information in the database and all student information is to be kept and stored by Computer Operations in the Data Center. There is also a policy in the works to forbid any user from having a shared folder on there own work station, all shared information is to be put onto one of three servers, and from there the owner of the shared folder can determine who can have rights to the contents of the folder.

Now if I was to create a database to improve the redundant student information some users have stored in Microsoft Access on there own computer I would create an Oracle SQL database on one server and the soul job of that server is to house the Oracle SQL database. From this one server we would be able to simply control whom has access to the information stored in the Oracle SQL database. The student information and any other information would be transferred from the VAX SQL database to the Oracle SQL database once each night so the current information on the Oracle SQL database is no older then 24 hours. The required tables in the database would take into account what each end user requests to have in a report and what each user needs to have displayed on there screen when a query is run ageist the Oracle SQL database. Another possibility is to use the MySierra Oracle SQL database because this database already has a lot of the required information and the Oracle SQL database is updated nightly from the VAX SQL database. The only modification needed to be done to the Oracle SQL database is add more tables representing the required fields the users request to be in a report or the information required to be in a query to Oracle SQL database.

The only other possible way to get all the schools information in one place at one time and all reports and queries are off live data off the VAX SQL database. The problem with this approach is the users will have to explain to the in-house programmers what reports and what data needs to be in the reports also what quires need to be run ageist the VAX SQL database so the user can see the information they need to see in order to do there jobs. The one reason this way will not happen is because it will use more man hours to complete the job and even though it is all done on live data it will also open up a possible whole for a hacker to get to live student information. The reason we have a system in place to pull data off the VAX SQL database in put the information into an Oracle SQL database is more for security reasons over any other reason. The MySierra Oracle SQL database is connected to the Internet because of this only information is allowed to pass one-way from the VAX SQL database to the Oracle SQL database as to not allow a hacker access to the live data on the VAX SQL database.