GAZI UNIVERSITY

ENGINEERING FACULTY

COMPUTER ENGINEERING

CENG482 INTRODUCTION TO COMPUTER SECURITY

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Assignment-1

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DATA

Data are unprocessed pieces of information. Data is usually collected for purposes such as analysis. There are many different ways to collect data. Examples of these are measurement, counting, experiment, observation or research. Quantitative data are data that represent a numerical value. These are usually obtained by measuring and counting. Data that does not represent a numerical value are called qualitative data. Viewed from a different angle, data is a set of numbers or characters. Data are meaningless on their own without a context. Data alone has no function. There are many different types of data. Some of them can be listed as follows.[1][2][3][4]

- Character
- String
- Integer
- Float
- Picture
- Sound
- Video

INFORMATION

The processed data is called information. After the data is collected, it turns into information when it is processed by summarizing, grouping or sorting. The difference between data and information is that information resolves uncertainty. Data becomes meaningful when it turns into information. In other words, when the data is processed, it gains a context so that operations such as problem solving and decision making become possible. In order for the decision to be meaningful, the data must have three different characteristics. First, the information must be available when needed. Second, the information must be accurate. Finally, the information must be complete. [5]

KNOWLEDGE

Interpretation of information may differ from person to person. The reason for this is that each person has a different past experience. So knowledge is subjective. As a result of different experiences, different interpretations and meanings can be attributed to the same information. As a result, knowledge is the accumulation of past experiences that enable us to interpret the same information differently. [6]

SECURITY

Security is the state of being away from possible dangers. Danger covers any unknown or unforeseen harm. Things that need to be protected are often valuables that pay off. Examples of these are humans, jewels, and important information. Different types of security exist as what needs to be protected changes. [7][8] Examples of some of these include:

- Computer Security (hardware or software)
- Corporate security
- Home security
- Human security

SAFETY

They are the precautions to be taken and the rules to be applied in order to protect the things that need to be protected from dangers. Compliance with these rules and protocols should be checked. There are three different types of safety. [9][10] These:

- Subjective safety
- Objective safety
- Perceived safety

WHAT MAKES DATA VALUABLE?

- Static Data: Static data is data that is entered once and never updated. It allows us to get information about the past.
- Source of Data: From the source of the data, it can be decided whether it is reliable and correct.
- Cleaning: Cleaning the data in the database means changing or deleting the wrong information.
- Size: The size of the data also has a significant impact on its value.
- Age: Data must be up to date. For example, let's assume that people's habits are extracted from the data. The habits of people living now cannot be deduced from the data collected in the 1800s. The data must be suitable for the intended use.
- Insights: The insights that can be drawn from the data are effective in determining the value of the data.

- Predictive: It is the effect of the decisions taken in the future thanks to the insights obtained from the static historical data. In this way, we can solve some problems with precautionary measures. [11]

MY SECURITY POLICY

For computer

- Setting a password so that anyone who opens the computer cannot enter
- Encrypting my important files on the computer
- Making a backup of important files to USB
- Not leaving the computer open in public
- Checking that the site is secure when entering an important password and username
- When you connect to the public and free internet, not to perform important actions that require entering a username and password.
- Choosing the passwords used as hard passwords and changing these passwords as I remember them
- Not telling my passwords to others
- Make sure that the software that needs to be downloaded to the computer is licensed.
- Installing an antivirus program on the computer.
- Keeping the computer's operating system up to date.
- Downloading the content after checking who the incoming emails are from and not stopping the antivirus program while the content is downloading.
- Do not insert devices such as USB that you find on the road into the computer.
- Keeping liquids away and being more careful when using a computer with liquids.
- Avoid slamming around while carrying the computer.

For phone

- Putting a hard screen lock on the phone
- Using a phone case against falling
- Selecting the applications to be downloaded from the Play Store and not downloading applications from other sources
- Paying attention to the permissions given for the application to be downloaded

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