COMP 2831 Week One Exercise A01029917 Andrew Hewitson

1. **What is information technology and why is it important? Suggest three fictitious headlines that might be added to Figure 1-1.**

* Information Technology refers to the combination of hardware, software, and services that people use to manage, communicate, and share information. The success of a business can depend on information technology. Software, Hardware and connectivity can provide enormous benefits to companies and individuals.

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| a) Elon Musk agrees that robot glut has slowed production of Model 3 |
| b) Facebook paid $7.3 million for Zuckerberg’s security last year |
| c) Company caught storing customers passwords in plain text format.  Says it has ‘Amazing Good Security’. |

1. **Why would a systems analyst have to act as a translator? What groups might be involved?**

* A Systems Analyst, when describing business processes, must speak with programmers in a language they understand clearly. Typically, they use models, diagrams, decision tables, and other descriptive tools and techniques. Similarly, when they communicate with managers they must translate complex technical issues into words and images that nontechnical people can grasp. To do this they use various presentation skills, models, and communication methods.
* Typical groups that are involved might be managers, programmers and analysts.

1. **Identify the main components of an information system. What is a mission-critical system?**
   * The five main components of an information system are hardware, software, data, processes, and people.
   * A mission-critical system is an information system that is vital to a company’s operation.
2. **What are the phases of the SDLC waterfall model? Who was Barry Boehm, and what did he have to say about spiral models.**

* The phases of the SDLC waterfall model are requirements, design, construction, testing, and maintenance & evolution
* Barry Boehm created the Spiral Model of Software Development. He stated that each iteration, or phase, of the model must have a specific goal that is accepted, rejected, or changed by the user or client.

1. **Based on the slides, list the 3 Model Driven techniques and give a brief explanation of each.**

* Structured Analysis – Focuses the SDLC on a series of processes. Uses an overall plan like a buildings blueprints.
* Information Engineering – Data driven design. Analyze data requirements needed to support the processes and build plan accordingly.
* Object Oriented Analysis – Combines data and processes to create an object. Objects represent a real person, place or thing. Objects have built in characteristics (data) and methods (processes).