School of Electrical Engineering & Computing
University of Newcastle
COMP1010 –Computing Fundamentals

Workshop Week 9

Task 1. Case study

1. Sandy Shores Time Shares (20 mins)

Sandy Shores Time Shares is one of the largest time-sharing and rental brokers for vacation cottages along the North Carolina coast. After 10 successful years of matching up owners and renters, Sandy Shores decided to acquire a computerized reservation and booking system. Tim Burns, the owner of Sandy Shores, read an article about software packages, and he asked you, as an IT consultant, for your advice.

a) Would the new reservation and booking system be a horizontal or a vertical application (Week 8 slide 16)? Explain your answer.

b) As a systems analyst, what would your role be in helping Sandy Shores develop a new system? Would the acquisition strategy affect your role? Why or why not?

2. Atrium Bio-Medical Supply, Inc. (20 mins)

Atrium Bio-Medical Supply is a medium sized regional supplier of medical and laboratory equipment. Since starting the company 12 years ago, Victoria Dawn has built Atrium into a competitive supply company across several metro areas, but her growth potential is limited because the firm does not have an integrated sales and logistics system. Victoria asked you to evaluate Atrium's options for acquiring a new system.

a) What options does Atrium have for acquiring a new system?

b) If the decision is made to purchase a new system, what are three options for customizing the software?

3. Leading Edge Climbing Equipment (20 mins)

Leading Edge Climbing Equipment is a retail rock climbing equipment vendor that is planning to install a new order entry and transaction processing system. As Leading Edge's IT manager, you are preparing for a follow-up meeting to confirm the owner's decision to move forward with the system.

a) In deciding on your proposal, what options do the owners have?

b) Explain the difference between logical and physical design.

Task 2. Discussion Topic (30 mins)

4. **Briefly describe and give an example of a business information system, a decision support system, and a control system.**

5. **Define and briefly discuss the difference between white box testing and black box testing.**

6. **What is the difference between system reliability and system safety? Give an example of a system that operates reliably but not safely.**

7. **Discuss why an organization might elect to use a separate, independent team for quality testing rather than the group of people who originally developed the software.**