# BUS 362
## Assignment 01 - Project Management

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# GANTT Charts

# Description

- Visual interpretation of the length of each task and the order in which they will be completed
- Can be easily done by hand with some basic addition
- Also done in BUS 361, with a slightly different style

# Purpose

- Used to help plan out projects
- Can identify the most important and most time sensitive activities (critical path)

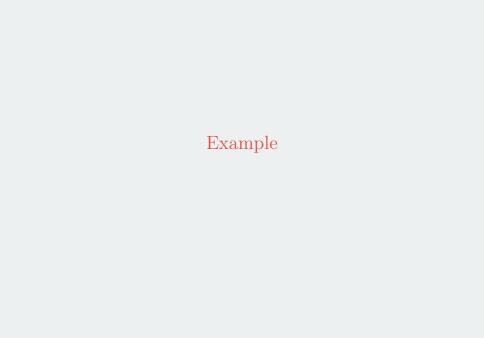# Textbook Pages

### Conceptual

- 5th Edition: pages 62-68
- 6th Edition: pages 50-57

### Example

- 5th Edition: pages 80-85
- 6th Edition: pages 65-69

Example

# Pigeon Racing

- Old sport, originated in Europe
- Still popular (particularly in Australia, China, Taiwan, Bangladesh)
- Black box results (tournament organizers win disproportionately)
- Prize winning pigeons can be sold for over $100,000

# Assumptions

- We're building a dovecote/pigeon coop
- Construction beings tomorrow
- Work 5 days a week
- Thursdays off

# Data

| Activity | Activity Name | Predecessor | Days |
|---|---|---|---|
| 1 | Review other pigeon coop plans | | 2 |
| 2 | Decide size and material requirements | | 3 |
| 3 | Put together your coop plans | 1, 2 | 4 |
| 4 | Get city approval for your coop | 3 | 7 |
| 5 | Purchase coop materials | 3 | 1 |
| 6 | Purchase bedding materials | 3 | 1 |
| 7 | Purchase pigeon food | | 1 |
| 8 | Cut materials to size | 4, 5 | 2 |
| 9 | Assemble materials into coop | 8 | 1 |
| 10 | Populate coop with food and bedding | 9 | 2hr |
| 11 | Introduce pigeons to their coop | 10 | 1 |

# Assignment

# Assumptions

- Project starts on October 1, 2017
- Non-standard seven day workweek
- No holidays

# Part 1

1. Construct a PERT diagram for the system using Microsoft Project. Note that in Project, a PERT diagram is called a Network diagram. You create it automatically by first generating a Gantt chart. Do not forget to change the project's settings to a incorporate a seven day work week.

2. Identify the critical path in the project. **This should be done prior to rescheduling. Write this path in your word document.**

# Part 2

1. Identify how many people will need to work on this project to ensure that the system is completed no later than Monday, November 20, 2017. To answer this question, you may assume that doubling the number of people for an activity reduces their efficiency to 65%, and tripling the number of people reduces their efficiency to 50%. The column in Table 1 that provides estimated time should be interpreted to mean that one person could finish a given activity in the number of days shown (i.e. that person works at 100% efficiency).

# Part 2

2. Indicate what sorts of skills you think you need, and how the (fictional) people will be assigned to the different activities. Show these assignments on your PERT diagram using the "assign resources" functionality in Microsoft Project (you will need to "name" or at least give a job title to each person in order to do this). In any given context, the way you assign people will depend on many other variables apart from just the tasks to be done.

3. Write an explanation justifying the total number of people you will hire (why not fewer? why not more?) and why you have assigned them as you have. What are some of the trade-offs that you as project manager needed to consider, and what criteria did you use to balance those trade-offs?