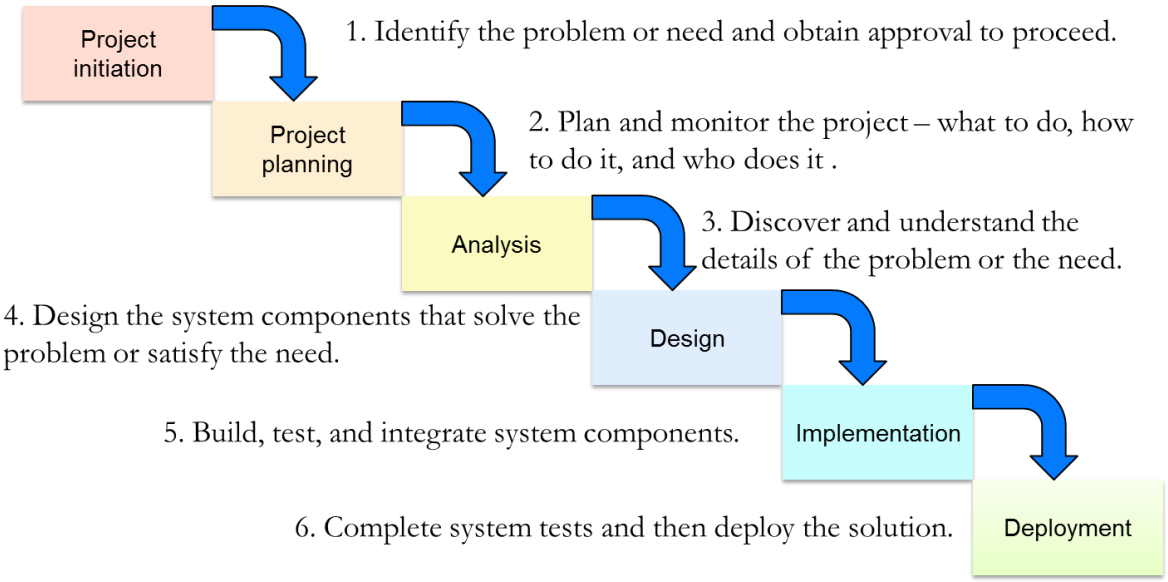
School of Electrical Engineering & Computing
University of Newcastle
COMP1010 –Computing Fundamentals
Workshop Week 5

Project Management

The System Development Life Cycle (SDLC) - six core processes



In this workshop, we will introduce the first two activities.

Activity 1: Identify the problem and obtain approval

- Identify the problem/purpose
- Quantity project approval factors
  - The estimated time for project completion
  - The estimated cost for the project and system
  - The anticipated benefits from the deployment of the new system
- Determine project risk and feasibility
- Review with client and obtain approval

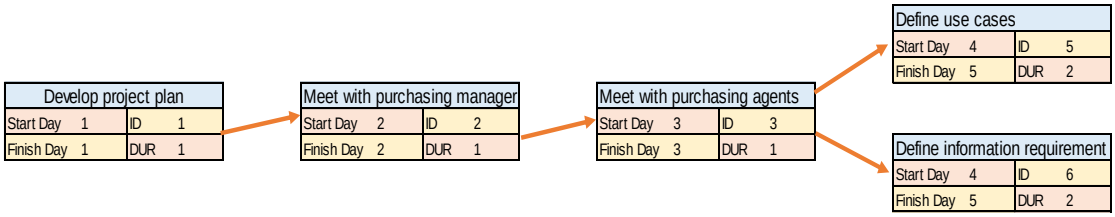
Activity 2: Plan and monitor the project

- Establish the project environment
  - What does a project manager do? Project overview, Tasks, Schedule, Budget, Team staff, Milestones, and Documents.
- Schedule the work
  - Develop a work breakdown structure
  - Identify task patterns
  - Calculate the critical path
- Staff and allocate resources
- Monitor progress and make corrections
  - Project and risk control
- Report

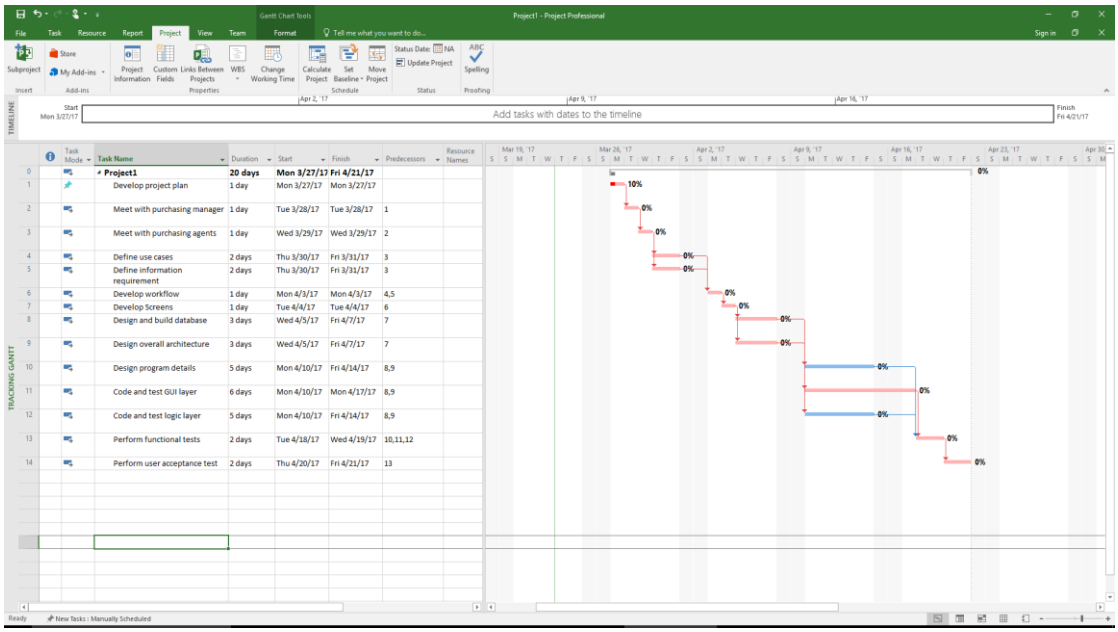
Case Study – Questions

- RMO is a large retail company that sells clothing and related accessories for all types of outdoor and sporting activities. Now RMO wants to develop an information system to collect and track information about suppliers and products, so that purchasing agents can communicate more rapidly with the home office about suppliers and specific products of interest.
- The new system should be capable of:
  - Collecting and storing information about suppliers
  - Collecting and storing information about sales representatives for each supplier
  - Collecting information for products and stocking pictures of products
- **Questions:**
  - Possible tasks and their duration
  - PERT/CPM chart

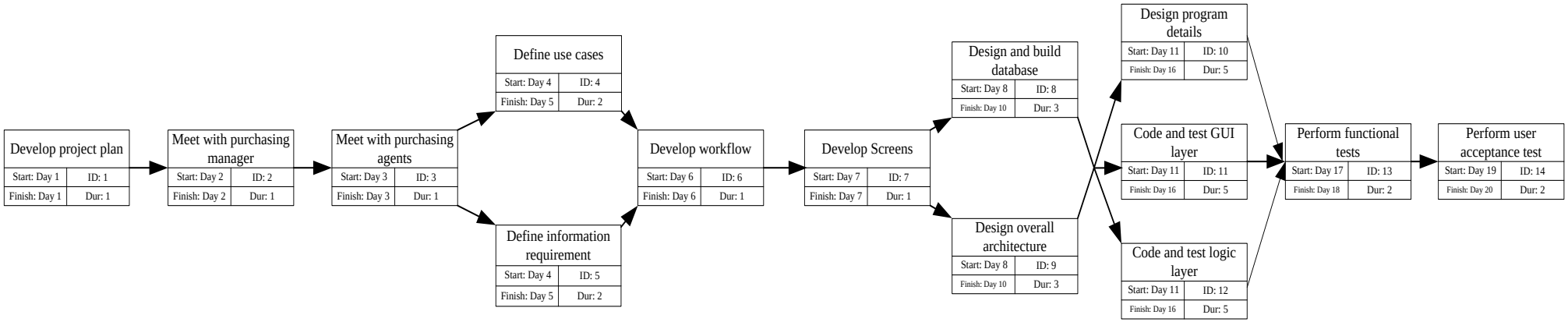
Case Study – How to create a PERT chart using Excel



Case Study – How to create a Gantt chart using Microsoft Project



Case Study – Answer & Practice



Discussion Questions

- What specific information do you need to create a work breakdown structure?
- What are the three main task patterns? Provide an example of each.
- Explain the difference between a Gantt chart and a PERT/CPM chart.
- What formula can a project manager use to estimate task duration? Provide an example.
- Why is the critical path important? Why would a task be on the critical path?

RECOMMENDED TEXT

COMP1010 *Computing Fundamentals* compiled by Raymond Chiong, Mira Park and Mark Wallis
1st Edition, Cengage Learning, 2017

FURTHER READINGS

- Hossein Bidgoli, MIS (7th Edition)
- Scott Tilley & Harry Rosenblatt, Systems Analysis & Design
- George W Reynolds, Ethics in Information Technology
- Susanna S Epp, Discrete Mathematics