SOFTWARE PROJECT MANAGEMENT
Unit 1

TOPICS

Project Definition

Contract Management

Activities Covered By Software Project Management

Overview Of Project Planning

Stepwise Project Planning

What is a project?

Definitions:

"A finite endeavor having specific start and completion dates undertaken to create a quantifiable deliverable."

"Unique process, consisting of a set of coordinated and controlled activities with start and finish dates, undertaken to achieve an objective conforming to specific requirements, including constraints of time, cost and resources"

Key points above are

- *planned activities*
- *start and finish dates*
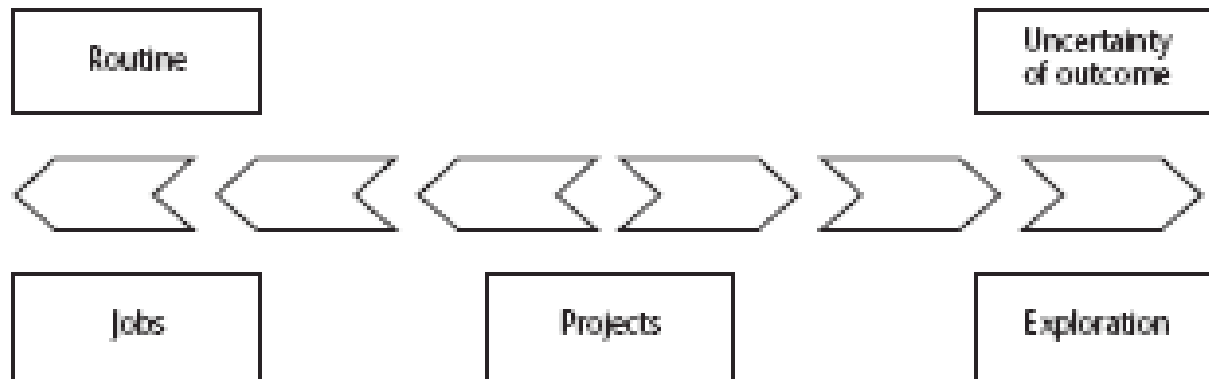- *objective*

Jobs versus projects

Figure 1.1   Activities most likely to benefit from project management

'Jobs' – repetition of very well-defined and well understood tasks with very little uncertainty

'Exploration' – e.g. finding a cure for cancer: the outcome is very uncertain

'Projects' – in the middle!

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Characteristics of projects

- Non-routine
- Planned
- Aiming at a specific target
- Work carried out for a customer
- Involving several specialism
- Made up of several different phases
- Constrained by time and resources
- Large and/or complex

Are *software* projects really different from other projects?

Similar, but with the following characteristics:

- Invisibility
- Complexity
- Flexibility

Therefore, software projects are more difficult to build.

Activities Covered By Software Project Management
The 5 phases of Project Management Process

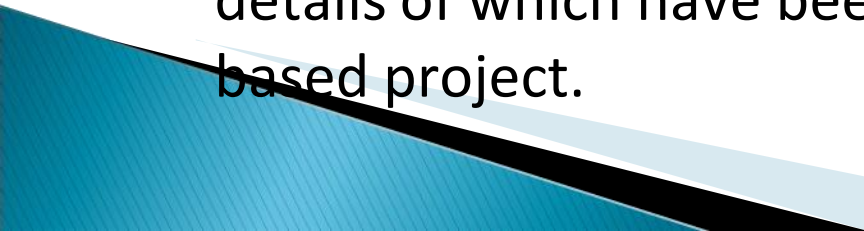| PHASES	
Initiating/Defining	- State the problem(s) / goal(s) - Identify the objectives - Secure resources - Explore costs/benefits in feasibility study
Planning	- Identify and sequence activities - Identify the "critical path" - Estimate time and resources needed for comp - Write a detailed project plan
Executing	- Start with the actual project work - Commit resources to specific tasks
Controlling	- Establish reporting obligations - Create reporting tools - Compare actual progress with baseline - Initiate control interventions if necessary
Closing	- Finalize all obligations/commitments - Meet with stakeholders - Release project resources - Issue final report

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Categorizing projects

Distinguishing different types of project is important as different types of task need different project approaches e.g.

- Information systems versus embedded systems

- Objective-based versus product-based

Information Vs Embedded systems (projects):

- Information systems are used by staff to carry out office processes and tasks eg. stock control system.

- Embedded systems are used to control machines eg. a system controlling equipment in a building.

Objective-based Vs Product-based systems (projects):

- Project whose requirement is to meet certain objectives which could be met in a number of ways, is objective-based project.

- Project whose requirement is to create a product, the details of which have been specified by the client, is product-based project.

Information Systems

•A **computer information system** is a system composed of people and computers that processes or interprets information.

•An **information system** is the information and communication technology (ICT) that an organization uses, and also the way in which people interact with this technology in support of business processes.

Examples: data warehouses, enterprise systems, expert systems, search engines, etc.