Chapter 1: Introduction

NET481: Project Management

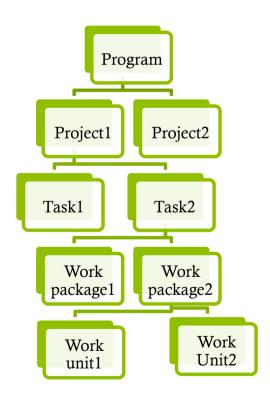Afnan Albahli

Topics to be covered

- Introduction

- The definition and characteristics of projects

- Why project management

- Software project management Vs. other projects

- The project life cycle

- Project stakeholders

- Project objectives

- Project and Business Success and Failure

- Project management

What is a Project?

- Project:
  - PMI defined project as: "*A temporary endeavor undertaken to create a unique product or service*"
  - *A problem with a known solution scheduled for completion—unique and non-routine activities*
  - A planned activity

Program and Project

- *Program: refer to an exceptionally large, long-range objectives that is broken down into projects*

- *Project*: are divided further into *tasks*

- *Tasks:* are split into *work packages*

- *Work packages:* are split into *work units*

Projects characteristics

- Non-routine tasks

- Planning is required

- Specific objectives are to be met

- Predetermined time

- Work is carried out for someone

- Carried out by people who don't normally work together

- Has several phases

- Large or complex

Exercise

♦ Determine which of the following is considered as a project:

  ♦ Checking your e-mail
  ♦ Flight from Riyadh to U.S.A
  ♦ Introducing a new production line
  ♦ Writing an operating system

Answer

- Checking your e-mail - **NO**

- Flight from Riyadh to U.S.A - **NO**

- Introducing a new production line - **YES**

- Writing an operating system - **YES**

Why project management?

- A lot of money is at market with ICT projects

e.g. In UK in 2002-2003 more money was spent on contracts for ICT than contracts for roads (£ 2.3 billion as opposed to £ 1.4 billion)

- Mismanagement of ICT projects means less money will be left to spend on important things such as hospitals

Why project management? (continued)

- **Projects are not always successful.**
  - A report published in 2003, the Standish Group in the United States analyzed 13,522 projects and found:
    - Only a **THIRD** of projects were successful
    - **82%** of projects were **LATE**
    - **43%** exceeded their **budget**
  - The reason of these shortcomings is often the management of these projects

Software project management Vs. other projects

- **Invisibility**: Progress in software is not immediately visible.

- **Complexity**: per dollar, pound or euro spent, software products contain more complexity than other engineered artifacts.

- **Conformity**: software developers have to conform to the requirements of human clients. Humans can be inconsistent.

Software project management Vs. other projects (Continued)

- **Flexibility**: the software is easy to change which is considered a strength. Usually, a software that will interface with a physical or organization system, is expected to change to accommodate the system not the opposite.

The project life cycle

- Three successive process that bring a new system into being

Feasibility study → Plan → Project execution

The project life cycle (continued)

- **Feasibility study**: Is it worth? Will benefits exceed the cost?

- **Plan**: How do we do it?
  - An outline plan for the whole project
  - A detailed plan for earlier stages
  - Planning for later stages near their start

- **Project execution**: Do it.
  - Design
  - Implementation

The project life cycle (continued)

Requirements Analysis → Architecture Design → Detailed Design → Code and Test → Integration → Qualification Testing → Installation → Acceptance Support

Project stakeholders

- Stakeholders: are people who have stake or interest in the project.

- They could be:
  - Internal to the project team
  - External to the project team but within the organization
  - External to both the project team and the organization

Project Objectives

- Objectives should define what the project team must achieve for project success

- Objectives should identify the shared intentions for the project based on the stakeholders requirements

- Objectives focus on the desired outcomes rather than the tasks to take it

Project Objectives (continued)

- **SMART** is used to describe a well defined objectives

  - S: Specific
  - M: Measurable
  - A: Achievable
  - R: Relevant
  - T: Time constrained

Exercise

- **Comment on the following objectives**

  - To design a system that is user-friendly

  - To produce full documentation for the new system

Answer

- To design a system that is user-friendly
  - Comments:
    - User-friendly is not specific
    - User-friendly is not measured

- To produce full documentation for the new system
  - Comments:
    - Full documentation is not specific
    - A list of the types of documents to be produced is more meaningful

Project and Business Success and Failure

- Project Success
  - Delivered on time
  - Within budget
  - Within the agreed on functionality
  - Within a certain level of quality

- Business Success

Benefits (value) exceeds the cost (development and operational)

Project and Business Success and Failure (continued)

- Project Success but a Business Failure
  - That you complete a project and produced a product on time, on budget, with the required functionality and the required degree of quality then no body buys it because for example another competitive product is cheaper

- Project Failure but a Business Success
  - The project may accede the budget but later the product attract a lot of customers and make good business

Project Management

- Project Management:
  - Is a carefully planned and organized effort to accomplish a successful project
  - The science and art of solving the problem within predetermined time and resource parameters