

SYSTEMS ANALYSIS & DESIGN

# MANAGING INFORMATION SYSTEM PROJECT

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#### **Chapter Description**

#### **Expected Outcomes**

- To explain the process of managing an information systems project.
- To know about project scheduling and process of creating Gantt Chart
- To know about the role of CASE tools to support SDLC

#### References

- J.A Hoffer, J.F. George, and J.S. Valacich, "Modern Systems Analysis and Design", 7/E, Addison-Wesley, 2014
- Kenneth E. Kendall, Julie E. Kendall., "Systems Analysis and Design ", Pearson, 2014
- D. Jeya Mala and S. Geeta, "Object Oriented Analysis & Design Using UML", McGrawHill, 2013
- Alan Dennis, Barbara Haley Wixom, David Tegarden, "Systems Analysis and Design With UML : An Object-Oriented Approach ", John Wiley, 2010
- Klaus Pohl, "Requirement Engineering Fundamentals", Santa Barbara, CA : Rocky Nook, 2011



#### **Project Management**

A project is the application of knowledge, skills, tools, and techniques to project activities thus meet the project requirements.

Characteristics of a project such as:

- i. Every project has specific objective
- ii. Project has start and end time
- iii. Project needs adequate resources example budget, manpower etc



#### **Software Project**

Software project has complete procedure from elicit requirement to testing and maintenance. Along with the execution methodologies in a specified duration to achieve its goal.

Software is an intangible product therefore experience of one product may not be applied to the other one.



#### Software Project Manager

Software project manager is a person who responsible on executing the software project. They need to manage the team, liaise with stakeholders/client, control budget, monitoring progress, manage risks etc.



#### **Project Manager Skill**

As a project manager they must have skills to lead their project.

Skills they must possess:

- i. Communication
- ii. Leadership
- iii. Team Management
- iv. Risk Management



# **Project Management Steps**

Basic steps in project management are:

- Initiate
- Plan
- Implement
- Close project



# **Project Initiation**

The development team must set project goals and objectives. Other activities such as :

- Appoint a project manager
- Identify stakeholder potentials
- Select team members
- Identify deliverables and outcomes



# **Project Plan**

Second step is to plan the project, involving:

- Define project scope
- Define tasks/activities/tasks
- Identify sequences of tasks
- Identify resources
- Get the company approval



# **Project Implement**

This is the longest step in the whole project, activities to be carried out :

- Get all resources
- Team must be lead and maintain its communication
- **Evaluate change requests**
- Manage and solve risks or conflict
- Control and monitoring project

Update management



# **Project Close**

Every project has its end, therefore after the project finish , project manager must :

- Conduct post-project review
- Prepare final report
- Close down operation
- Terminate the team



### **Project Scheduling**

After project manager define the project scope , he must develop a work break down structure (WBS).

- WBS tool shall help him to identify activities, sequences among them , estimate their durations then create the schedule.
- Furthermore, estimate the costs, plan the human resources allocation etc.



#### **Work Breakdown Structure**

WBS is a tool to establish tasks involved in a project.

One of it is top-down approach - break high level tasks into smaller, detailed tasks



# Work Breakdown Structure

Example:

Subject Assignment Grading

- 1. Create grading plan
  - 1.1 Develop grading schema
  - 1.2 Develop checking figures and plagiarism
- 2. Prepare assignment projects for Subject Grading
  - 2.1 Download submitted assignments
  - 2.2 Extract and zipped all files
- 3. Do on all assignments
  - 3.1 Checking on plagiarism
  - 3.2 Apply grading schema and give marks



### **Project Scheduling**

Identify the relationships between activities involves the sequencing plus dependencies between activities.

Basically to create the project schedule, used : Bar/ Gantt Chart

Network Diagram



### **Project Scheduling**

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#### Example of Gantt Chart using CASE tool (Microsoft Project)



## **Risks Management**

Risks management is concerned with finding risks and setting up plans to minimize their effect on project. A risk is a probability that some adverse situation will occur

- Project risks on schedule or resources
- Product risks affect the quality of the development software
- Business risks affect the organization developing or procuring the software.



## **CASE tools**

Computer-Aided Software Engineering (CASE) tools support specific tasks in project management. Tasks which CASE tools support such as:

- Project management plans, task assignments and develop scheduling
- Producing reports
- Business and analysis modelling

example : Microsoft Project, Rational ROSE

