

# S/W Project Management

Ruchita Shah

# The Management Spectrum

- S/w project management focuses on people, product, process & project
- People : Highly skilled s/w people
  - An important requirement
  - PM-CMM to “enhance the readiness of s/w org to undertake complex application by attracting, grow, motivate, deploy & retain talent
  - PM-CMM defines key practicing area – recruiting, selection, recruiting, performance management, training, compensation, career development, organization

# The Management Spectrum

- Product : before project planning
  - product objective & scope be established
  - consider alternate solutions
  - identify technical & management constraints
  - without this impossible to estimate cost, assess risk, breakdown project tasks & schedule
- Objective states overall goal for product from customer viewpoint
- Scope identifies primary data, function & behavior of the product and binding them
- After that alternate solution to be considered for best approach

# The Management Spectrum

- Process : provide a framework
  - plan of s/w development
  - no. of tasks & umbrella activities
- Project : planned & controlled projects to manage complexity
  - In 1998 26% failed & 46% experienced cost & schedule overrun
  - To avoid failure s/w project manager & engineer must avoid common warning signs
  - Understand critical success factor
  - Develop an approach for planning, monitoring & controlling project

# People

- S/w development team, important contributor, a primary asset, participants & their way for effective SE
- The Stakeholders : five categories
  1. Senior manager : defines business issues, significant influence on project
  2. Project manager : plans, motivates, organize & control developers
  3. Practitioners : technical skills
  4. Customers : specify requirements
  5. End users : interact with s/w

# Project Team

- must be organized to maximize skills & ability of each person
- A job of team leader
- Team leaders : Competent developer a poor team leader, characteristics are
  1. Motivation : encourage technical people, produce at best ability
  2. Organization : ability to mold existing process, initial concept to final product
  3. Ideas/ innovation : ability to encourage people to create & feel creative

# Project Team

- Successful project leader apply problem solving mgmt.
- Should concentrate & understand the problem
- Manage the flow of ideas & control quality
- Project manager characteristics are :
  1. Problem solving :
    - Can diagnose technical & organizational issues
    - Structure a solution
    - motivate others to develop solution
    - Past experience
    - Flexible to change directions if initial attempts fails

# Project Team

## 2. Managerial identity :

- take charge of project
- confident to assume control
- assurance to technical people

## 3. Achievement :

- to optimize productivity of a team
- reward initiative accomplishments

# Project Team

## 4. Influence & team building :

- read people, understand signals & react to needs of people
- remain under control in high stress conditions
- The s/w team