프로젝트 관리
 (planning IS project)

시스템분석 및 설계
(Systems Analysis & Design)
4주차
목차

♥ 프로젝트 관리(Project Management)
  ♦ 프로젝트의 개념
  ♦ 프로젝트 관리의 개념
  ♦ 프로젝트 관리자(PM: Project Manager)
  ♦ 정보시스템 프로젝트 관리(IS Project Management)
  ♦ IS 프로젝트 관리 필요성
  ♦ IS 프로젝트 실패 요인
  ♦ PMBOK
  ♦ 프로젝트 기획 활동(Plan and monitor)
프로젝트(Project)

♥ Project의 정의(Definition):
♦ A temporary endeavor undertaken to create a unique product, service, or result

♥ 특징(Characteristics)
♦ Performed by people(project team)
♦ 제한된 가용자원(constrained by limited resources)
♦ Planned, executed, controlled

♦ Temporary
  ♣ 시작과 끝이 정해진 일(have a definite beginning and a definite end)
♦ 일회성(Unique)
♦ Progressive elaboration
♦ Involves uncertainty

자료원: A Guide to PMBOK, PMI
프로젝트 관리(Project Management)

♥ Project Management

♦ 정의(definition): the application of knowledge, skills, tools, and techniques to project activities to meet project requirements

♦ Identifying requirements

♦ Addressing the various needs, concerns, and expectations of the stakeholders in planning and executing the project

♦ Setting up, maintaining, and carrying out communications among stakeholders that are active, effective, and collaborative in nature

♦ Managing stakeholders towards meeting project requirements and creating project deliverables

♦ Balancing the competing project constraints
  ♣ scope, schedule, budget, risk, resources, and quality

자료원: A Guide to PMBOK, PMI
Project Manager

- Work with project sponsors, a project team, and other people involved in a project to meet project goals.

- Internal: Manage project team and resources
  - Developing the project schedule
  - Plan, execute, monitor, control the project
  - Organizing and directing other people to achieve a planned result within a predetermined schedule and budget
  - Assessing project risks

- External: Conduct public relations
  - Reporting the project’s status and progress
  - Working directly with the client (the project’s sponsor) and other stakeholders
  - Identifying resource needs and obtaining resources

Source: A Guide to PMBOK, PMI
Skills and Competencies for Project Managers

- 1. People skills
- 2. Leadership
- 3. Listening
- 4. Integrity, ethical behavior, consistent
- 5. Strong at building trust
- 6. Verbal communication
- 7. Strong at building teams
- 8. Conflict resolution, conflict management
- 9. Critical thinking, problem solving
- 10. Understands, balances priorities

자료원: Information Technology Project Management, Fifth Edition
IS 프로젝트 관리(IS Project Management)

♥ IS Project의 정의(Definition):
  ♦ 정보시스템을 구축하는 프로젝트
     ❌ 개발 또는 도입

♥ project stakeholders
  ♦ Sponsor
  ♦ Customers and users
  ♦ Sellers
  ♦ Business partners
  ♦ Organizational groups
  ♦ Functional managers
  ♦ Other stakeholders
프로젝트 관리(Project Management) 필요성

♥ 낮은 프로젝트 성공률 (low success rate)

♣ Successful:
  ♣ delivered on time, on budget, with required features and functions

♣ Challenged:
  ♣ late, over budget, and/or with less than the required features and functions

♣ Failed:
  ♣ cancelled prior to completion or delivered and never used

자료원: CHAOS Manifesto 2013, The Standish Group International
프로젝트 관리(Project Management) 필요성

♥ 예산/일정 초과, 기능 부족

(overruns and features of challenged projects)

자료원: CHAOS Manifesto 2013, The Standish Group International
프로젝트 관리(Project Management) 필요성

♥ Usage of features or functions
  ♦ 20%: used often
  ♦ 50%: hardly ever or never used
  ♦ 30%: get used sometimes or infrequently

♥ Implications
  ♦ Reducing scope of large projects and breaking up large projects
  ♦ Small projects: < $1M in labor cost
  ♦ Large projects: > $10M in labor cost

자료원: CHAOS Manifesto 2013, The Standish Group International
프로젝트 관리(Project Management) 필요성

♥ 성공 요인(Factor of success)

<table>
<thead>
<tr>
<th>FACTORS OF SUCCESS</th>
<th>POINTS</th>
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<tr>
<td>Executive Management Support</td>
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<td>User Involvement</td>
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<td>Clear Business Objectives</td>
<td>15</td>
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<td>Emotional Maturity</td>
<td>12</td>
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<td>Optimization</td>
<td>11</td>
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<td>Agile Process</td>
<td>9</td>
</tr>
<tr>
<td>Project Management Expertise</td>
<td>6</td>
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<tr>
<td>Skilled Resources</td>
<td>5</td>
</tr>
<tr>
<td>Execution</td>
<td>4</td>
</tr>
<tr>
<td>Tools and Infrastructure</td>
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자료원: CHAOS Manifesto 2012, The Standish Group International

♦ Small projects

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자료원: CHAOS Manifesto 2013, The Standish Group International
프로젝트 성패 영향 요인 분류

1. 프로젝트 관리
   - Plan
   - Direct
   - Solve problems
   - Communicate

2. People
   - Skills
   - Motivation
   - Quantity
   - Continuity

3. Business
   - Alignment
   - Funding
   - Risk
   - Return on investment
   - Data

4. Technical
   - Hardware
   - Software
   - Testing
   - Relationships between elements

5. Method
   - Approach
   - Procedures
   - Tools

The “IT Project”
Sample contains a total of 99 observations from 17 detailed sources

Source: Seven Reasons Why Information Technology Projects Fail, Gulla, IBM, 2011
Reasons for IT Projects failure

1. Poor project planning and direction
2. Insufficient communication
3. Lack of change, risk, financial, and performance management
4. Failure to align with constituents and stakeholders
5. Ineffective involvement of executive management
6. Lack of skilled team members in the areas of soft skills, ability to adapt, and experience
7. Poor or missing methodology and tools

Source: Seven Reasons Why Information Technology Projects Fail, Gulla, IBM, 2011
Typical IT Project Management Mistakes

- Focus is only on managing scope, time and costs
- Inability to objectively assess and report the health of the project
- Lack of project communication management
- No project acceptance criteria
- Lack of project change control procedure
문제 프로젝트의 원인

자료원: 성공적 프로젝트 수행: 체계적 요구사항 관리로, 소프트웨어진흥원 2008.06
변경 비용 (cost of change)

자료원: 성공적 프로젝트 수행: 체계적 요구사항 관리로, 소프트웨어진흥원 2008.06
10 Knowledge Areas

- Project Integration Management
- Project Scope Management
- Project Time Management
- Project Cost Management
- Project Quality Management
- Project Human Resource Management
- Project Communications Management
- Project Risk Management
- Project Procurement Management
- Project Stakeholder Management
Plan and Monitor the Project

♥ Establish the Project Environment
♥ Schedule the Work
♥ Staff and Allocate Resources
♥ Evaluate Work Processes
♥ Monitor Project Progress and Make Corrections
Establish the Project Environment

♥ 프로젝트 환경 설정

♦ 내부, 외부 stakeholder와 소통 방식

♦ 작업 환경 (work environment)
  ♣ 개발 도구 (development tool)
  ♣ 공간 확보: office, meeting room
  ♣ 지원 인력 (supporting staff)

♦ 업무절차 (procedures)
  ♣ 보고라인 (reporting)
  ♣ 문서화 (documentation)
  ♣ testing
  ♣ Version control
Schedule the Work

❤ Establish initial project schedule and keep adjusting

❤ Develop Detailed Work Schedule
  ♦ Develop a Work Breakdown Structure (WBS)
  ♦ Estimate effort and identify dependencies
  ♦ Create a schedule using a Gantt chart or PERT/CPM chart
Schedule the Work

❤️ PERT/CPM chart example
Staff and Allocate Resources

❤ Staffing

♦ Developing a resource plan
♦ Identifying and requesting specific technical staff
♦ Identifying and requesting specific user staff
♦ Organizing the project team into work groups
♦ Conducting preliminary training and team-building exercises
Evaluate Work Processes

❤ adequ ate communication procedures?
❤ effective working relationships with the user?
❤ hit deadlines?
❤ miss any major issues?
❤ the bottlenecks or problem areas?
❤ key performance indicators
  ♦ work completed
  ♦ start and finish dates of schedule activities
  ♦ actual durations
  ♦ actual costs
  ♦ number of change requests
  ♦ number of defects,
  ♦ technical performance measures,
Monitor Project Progress & Make Corrections

♥ Compare actual progress with plan
♥ change requests
  ◆ Corrective action
  ◆ Preventive action
  ◆ Defect repair
  ◆ Updates
♥ review all change requests
♥ approve and manage changes
♥ Issues-Tracking Log