PMC444NHH

Lab Class Summary: Individual

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MICROSOFT PROJECT

Basics

- The user interface in Microsoft Project is similar to other Microsoft Office applications which makes it easier to pick up.
- A project schedule is a model of what is planned to happen. The Gantt Chart view is the most common for visualizing this schedule.
- Tasks, resources, durations, and costs are part of the schedule model.

Resources

- Resource Types:
  - Work: People and equipment.
  - Material: Consumable items.
  - Cost: Financial obligations without time-based work.
- Resources are entered in the Resource Sheet view.
- Important details include availability (max. units) and associated costs.

Assignments

- Resources can be assigned to tasks using the Assign Resources dialog.
- Multiple resources can be assigned to the same task.
- Effort-driven scheduling affects how duration, units, and work are calculated.

Scheduling and Calendars

- Calendars define working and non-working times.
- Task calendars can override the project calendar.
- New calendars can be created and applied as needed.

Task Types and Work Formula

- Work = Duration × Units.
- Task types:
  - Fixed Units: Default; changing work or duration affects the other.
  - Fixed Duration: Duration stays fixed.
  - Fixed Work: Work stays fixed.

Formatting and Views

- Views include Gantt Chart, Network Diagram, and Resource Sheet.
- Gantt Chart styles and Bar Styles dialog help format for presentations.

Tracking and Earned Value Management

- Track actual start, finish, and duration to monitor progress.
- Key metrics:
    - PV (*Planned Value*), EV (*Earned Value*), AC (*Actual Cost*)
    - CPI (*Cost Performance Index*), SPI (*Schedule Performance Index*)
    - EAC (*Estimate at Completion*), BAC (*Budget at Completion*), VAC (*Variance at Completion*)

PROJECT MANAGEMENT CONCEPTS

Project Management Overview and Integration

We explored project management, its benefits, and the role of integration in successfully initiating and planning a project. Some key concepts were:

- Projects are unique, temporary efforts with specific goals.
- Integration management ensures all project elements work together.
- Important processes:
    - Develop project charter
    - Develop project management plan
    - Direct and manage project work

Stakeholder Management

Focused on how stakeholders can influence the project and why identifying and managing them is important.

- Stakeholders are any people or groups impacted by the project.
- Key steps:
    - Identify stakeholders
    - Assess their influence and interest
    - Plan and manage stakeholder engagement

Scope Management

We looked at how project scope is defined, structured, and controlled to ensure only necessary work is performed.

- Scope defines what is included (and excluded) from the project.
- Tools and processes:
    - Collect requirements
    - Define scope and create WBS (Work Breakdown Structure)

- Scope creep is controlled through change management.

Integration Continued & Planning Phase

This section focused on planning as a central part of project integration and covered how plans are built to coordinate project efforts.

- Planning involves coordinating all knowledge areas.
- Setting baselines and implementing change control processes is vital.

Communication Basics

We examined how communication plays a role in project success and how to ensure information is shared effectively.

- Project communication involves both formal and informal channels.
- Key areas:
    - Planning communications
    - Managing and monitoring communications

Communication Management

We looked into how to structure and manage communications within a project team and with stakeholders.

- Communication plans define:
    - Methods and frequency of communications
    - Information formats and audience
- The number of communication channels increases with team size: n(n-1)/2.

Resource Management (HR)

This section introduced how to manage people involved in the project and the motivational theories behind team performance.

- Managing human resources includes assigning roles, building teams, and motivating individuals.
- Models and theories:
    - Maslow's Hierarchy of Needs
    - McClelland's Achievement Theory
    - Herzberg's Motivation-Hygiene
    - Theory X/Y/Z
    - Daniel Pink's Autonomy, Mastery, Purpose

HR and Communication

We continued looking at HR and communication practices, with a focus on aligning communications to audience needs.

- Emphasizes personalized communication.
- Use of tools like stakeholder communications matrix and technologies (email, meetings, reports).

Risk Management

We discussed how to identify, assess, and plan responses to risks that could affect the project.

- Risk = Uncertain event that can impact objectives.
- Risk processes:
    - Identify risks (brainstorming, Delphi, SWOT)
    - Qualitative and quantitative analysis
    - Plan and implement responses
- Tools:
    - Risk Register
    - Probability/Impact matrix
    - Risk categories.

Schedule Management

In this section, we focused on the steps and tools used to develop and manage a realistic project timeline.

- Key scheduling steps:
    - Define and sequence activities
    - Estimate durations
    - Develop and control schedule
- Tools: Gantt charts, Critical Path Method (CPM), PERT.

Cost Management

We looked into how to estimate, budget, and control project costs using traditional and earned value methods.

- Focus on staying within the approved budget.
- Cost tools:
    - Cost estimates and baselines
    - Earned Value Management (EVM)
    - EVM metrics: PV, EV, AC, CPI, SPI, EAC, BAC

Quality Management

We examined how to plan and control the quality of project deliverables using established techniques and standards.

- Quality management ensures project outputs meet expectations.
- Two key concepts:
    - Conformance to requirements
    - Fitness for use
- Three processes:
    - Planning Quality: Identify relevant standards
    - Managing Quality: Implement processes to meet those standards
    - Controlling Quality: Inspect results and ensure compliance
- Tools and Techniques:
    - Control Charts
    - Cause-and-effect Diagrams (Fishbone)
    - Pareto Charts, Histograms
    - Statistical Sampling
- Six Sigma (DMAIC):
    - Define, Measure, Analyze, Improve, Control
- Other Concepts:
    - Kaizen = Continuous improvement
    - Benchmarking
    - Quality Audits
    - Organizational culture, leadership, and cost of quality influence success

CONCLUSION

Overall, the course taught me how to think like a project manager by understanding the structure and flow of managing real-world projects. I enjoyed planning and coordinating project tasks, handling risks and costs, and effectively communicating with stakeholders. Using Microsoft Project helped me apply these concepts practically, and I now feel more confident in organizing, tracking, and controlling all the moving parts of a project.