

Faculty of Computers and Artificial Intelligence Spring Semester, 2025 Course: Project Management

Project Description

Project Description: Project Management Development

The objective of this project is for each team to select and manage the development of a specific system or process, applying comprehensive project management techniques. Examples of projects include, but are not limited to, the following:

- 1. Developing an Online Course from Scratch
- **2.** Creating a Mobile Application to solve a Specific Problem (e.g., a fitness tracking app)
- 3. Managing the Construction of a New Office Building from Start to Finish
- **4.** Opening a New Medical Clinic that Provides General Healthcare Services
- 5. Launching a New Retail Store for a Well-Established Brand in a New City

Project Setup in MS Project

1. Initial Configuration

Begin by creating your project management plan using **Microsoft Project**. Modify the project properties to reflect essential details, including:

- o Title
- Subject
- Author
- o Project Manager
- Company Name

2. Calendar Creation and Customization

Create a custom calendar that aligns specifically with the needs of your project. Within this calendar:

- o Define working and non-working days.
- Specify the **working hours** for each working day.
- Account for **exception days**, such as holidays or other non-working periods, which may affect project timelines.

Once the calendar is created, assign it to the project and adjust the **timescale**. Additionally, change the calendar's color to visually reflect the project's specific timeline and schedule.

3. Task Identification and Structuring

Identify and classify all project tasks, ensuring you include a variety of task types:

- **Summary Tasks** (overarching tasks that group related sub-tasks)
- **Sub-tasks** (individual actions that make up the summary tasks)
- **Recurring Tasks** (tasks that repeat periodically)
- Milestones (key points or achievements in the project)

4. Task Duration and Scheduling

Establish the **duration** for each task, clearly defining the **start and finish dates**. Organize tasks using **outline numbers** to visually represent the hierarchy of the tasks within the project.

5. Task Annotations

For certain tasks, add **detailed notes** to clarify their purpose or significance, providing additional context that aids in understanding and execution.

6. Predecessors and Successors

Specify the **Predecessors** and **Successors** for each task, establishing task dependencies. Be sure to define the type of relationship (e.g., finish-to-start, start-to-start) for each linkage, which will influence task scheduling.

Resource Planning, Assignment, and Critical Path Analysis

7. Resource Sheet Creation

Create a **Resource Sheet** to identify and define all the resources necessary for project execution. Include essential properties for each resource, such as:

- o Resource Name
- o Type (e.g., Work, Material, Cost)
- Standard Rate (for cost resources)
- Max Units (for resource allocation limits)
- o Availability

8. Resource Assignment

Assign the identified resources to the appropriate project tasks, ensuring each task is adequately resourced based on its requirements and timelines.

9. Network Diagram & Critical Path Analysis

Develop a **Network Diagram** within MS Project to visualize task dependencies and workflow.

- Ensure all tasks are linked with appropriate **predecessors** and **successors**.
- Use the network view to identify the **critical path**, representing the longest sequence of dependent tasks that determines the minimum project duration.
- Highlight critical tasks and monitor them closely to prevent delays.

Project Reporting

10. Report Generation

Finally, generate a comprehensive set of **project reports** to present the status and performance of your project effectively. These should include various types of reports, such as:

- Overview Reports Summarize the overall progress of the project, including key milestones, completion percentages, and upcoming deadlines.
- **Assignment Reports** Detail the distribution of tasks among resources, highlighting individual workloads and assignment status.
- Critical Tasks Reports Identify tasks on the critical path that directly influence the project's timeline and require close attention to avoid delays.

These reports will provide valuable insights for tracking the project's health, supporting informed decision-making, and communicating progress to stakeholders.

Nursery System Project Management Plan (Tasks Example)

1.0 Planning & Design

- **1.1** Define nursery goals and age groups
- **1.2** Create floor plan/layout
- **1.3** Select curriculum/program structure
- **1.4** Develop safety and security policies
- **1.5** Apply for necessary licenses/permits (*Milestone*)

2.0 Setup & Procurement

- **2.1** Secure nursery location (*Milestone*)
- **2.2** Renovate/prepare interior
- **2.3** Purchase furniture and equipment (cribs, tables, chairs)
- **2.4** Purchase toys and learning materials
- **2.5** Install safety features (gates, plug covers, etc.)
- **2.6** Set up kitchen and diapering areas

3.0 Staffing

- **3.1** Define job roles and requirements
- **3.2** Advertise and recruit staff
- **3.3** Interview candidates
- **3.4** Hire staff (*Milestone*)
- **3.5** Conduct background checks and certifications
- **3.6** Staff orientation and training

4.0 Marketing & Enrollment

- **4.1** Create marketing materials (flyers, social media, website)
- **4.2** Hold open house/information sessions
- **4.3** Distribute promotional materials
- **4.4** Begin enrollment process
- **4.5** Register children and collect documentation (*Milestone*)

5.0 Daily Operations Setup

- **5.1** Prepare daily schedule
- **5.2** Set up attendance tracking system
- **5.3** Create meal and nap schedules
- **5.4** Plan weekly learning themes
- **5.5** Schedule staff shifts

6.0 Health & Safety

- **6.1** Train staff on emergency procedures
- **6.2** Schedule regular cleaning and sanitization
- **6.3** Develop illness and medication policies
- **6.4** Conduct fire and evacuation drills

7.0 Ongoing Management

- **7.1** Monitor child development progress
- **7.2** Conduct parent-teacher meetings (Recurring Task)
- **7.3** Track staff performance and provide training
- **7.4** Update curriculum periodically (Recurring Task)
- **7.5** Perform regular maintenance checks (Recurring Task)