



CCS2301-Business Analysis and Software Design

Group Work 3

Duration – 2 Hours

Lab Objectives

- Understand the importance of proper project planning in system development.
- Decompose a real-world software project into manageable phases and tasks using a Work Breakdown Structure (WBS).
- Represent a project timeline using a Gantt Chart.
- Analyze task dependencies to identify the Critical Path and calculate slack time.
- Develop a professional group presentation summarizing project planning outputs.

Learning Outcomes

- Apply the concept of **Work Breakdown Structure (WBS)** to organize and structure project tasks.
- Construct a **Gantt Chart** to visually represent the duration and sequencing of tasks.
- Determine the **Critical Path** using task dependency and scheduling techniques.
- Collaborate in a group to complete structured planning tasks within a given scenario.
- Prepare and deliver a short **PowerPoint presentation** effectively summarizing project planning work.

Scenario: University Event Management System

Your university is facing challenges in managing student-organized events. Currently, clubs and societies handle event approvals and participant registration using paper-based forms or inconsistent tools like WhatsApp and email. This has led to event clashes, approval delays, and low student engagement.

To address this issue, your group has been selected to analyze, design, and develop a University Event Management System within a six-week timeframe. The proposed system will allow:

- **Event creation** by club representatives
- **Approval workflow** handled by the university admin
- **Student registrations** for events
- **Automated reports** on participation and event stats

You are expected to approach this as a software project and apply concepts of **Work Breakdown Structure (WBS)**, **Gantt Chart**, and **Critical Path** to plan and manage this project effectively.

Group Work Tasks

Task 01 – Work Breakdown Structure (WBS)

Break the project into **at least 3 major phases** (e.g., Planning, Development, Testing).

Each phase should contain **3–5 subtasks**.

1. Structure the WBS in either:
 - Hierarchical format (tree)
 - Numbered outline format (e.g., 1.1, 1.2)

Note: You may use any tool or software (e.g., draw.io, Lucidchart, MS Word, Google Docs, Canva, etc.) to design the WBS.

Task 02 – Gantt Chart Creation

1. Assign a **Start Day** and **End Day** for each subtask.
2. Estimate **Duration** (in days) for each.
3. Identify which tasks can be done in **parallel** and which have **dependencies**.

Note: You may use **any tool or software** (e.g., MS Excel, Google Sheets, TeamGantt, GanttProject, Canva) to create the Gantt Chart.

Task 03 – Critical Path Analysis

1. Using your WBS and task durations, create a **network diagram** showing task dependencies.
2. Calculate:
 - Earliest Start (ES), Earliest Finish (EF)
 - Latest Start (LS), Latest Finish (LF)
 - Slack Time
3. Highlight the **Critical Path** (tasks with zero slack).

Task 04 – Group Presentation

Each group must present its project plan to the class.

Presentation content must include:

- Overview of your **WBS**
- Overview of your **Gantt chart**
- Explanation of the **Critical Path**
- One key challenge you faced while planning

Duration: 5-7 minutes per group

The presentation will be evaluated based on clarity, teamwork, and understanding.

Submission Guidelines

- Prepare your presentation using **PowerPoint (.ppt or .pptx format)**.
- Submit the final file to the **LMS before the deadline**.
- Use the following **naming convention** for your file:
GroupName_CCS2301_ProjectPlanning.pptx