Name-Surname: ………………………………………………………   ID:
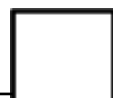
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Software Engineering Lab

Direction Lab #5

10th February 2022

1. The table below summarizes the tasks in a project. Draw **an activity network** and **a Gantt chart** of this project by hand on the space below, assuming **the start date is today**. Then determine the critical path and the expected finish date of the project.

Task	Duration (days)	Predecessors
T1	10	
T2	25	
T3	15	
T4	5	T3 (M1)
T5	10	T1, T2, T3 (M2)
T6	15	
T7	20	T5 (M3)
T8	25	T4, T6 (M4)
T9	5	T8 (M5)
T10	10	T7, T9 (M6)
T11	35	T6 (M7)
T12	10	T11 (M8)

2. Create a new project file in Project Libre and input the task table in question 1. Use Project Libre to generate a network diagram and a Gantt chart. Also, use the program to find the critical path and the expected finish date of the project.

3. Imagine that you and your team are hired by a software company to develop a website which provides information about the restaurants in Thailand. List all the **tasks** involved in this project (including their **durations** and **dependencies**). Then use Project Libre to create your software development plan. The following are some of the common tasks in a website development project. You may add other tasks, you think, necessary.

Requirement
- Fact finding
  - Study an existing similar website
  - Do a survey on restaurants
- Identify the functions of the website
- Identify restaurant data and classification
- Obtain server requirement (hardware and software)
- Prototyping
  - Design mock-ups screens
  - Create mock-ups screens
- Prepare requirement specification

Design
- Design the data model
- Design the user interface
  - Layout design
  - Artwork design
- Design the software architecture

Implementation

- Set up the development environment
  - Set up the development servers
  - Set up the development computers
- Implement the data model
  - Set up the development DBMS
  - Create databases
- Programming
  - Client-side coding
  - Server-side coding
- Graphics
  - Create graphic files
- Integration

Data Collection
- Obtain restaurant data
- Data entry

Testing
- Unit testing
- GUI testing
- Integration testing
- End-user testing
  - Alpha testing
  - Beta testing

Deployment
- Arrange web hosting
- Install website

Milestone 1
- Requirement specification completed
- Customers agreed with the specification

Milestone 2
- Design documents completed

Milestone 3
- Implementation completed

Milestone 4
- Testing passed

Milestone 5
- Website deployed

Group Homework: Working as a group (i.e. your SE project group), use Project Libre to create a schedule for your team development activities of the SE Python project. This project schedule contains a Gantt chart and a network diagram of your team SE Python project.

Put this project schedule in your project proposal to submit as this homework; the proposal contains

- Project title and team members (with their names and student IDs)

- Project description (at least 1 page long)

- Draft UI Design (at least 2 screens)

- Breakdown of the software project activities and their durations

- Project plan (your project schedule) printed from Project Libre