

Fall 2021 - IE 492 Term Project

Here is important information for the 2nd term project deliverable due - next week, Sunday, October 17, 2021.

Second Deliverable - October 17, 2021 - WBS, Network Activity Diagram - Project Schedule - Risk Register

The second deliverable is three part deliverable and is focused on building out the project idea proposed in the first deliverable.

Introduction

This is a multi-part comprehensive project deliverable. Until this point, each team has submitted a list of project ideas, and finalized on a single project idea. This is the planning phase of the project and therefore the following project artifacts are required: Work Breakdown Structure, Network Activity Diagram, and Project Schedule. Ideally the above project elements are prepared in the given order as the preceding element provides information and details for the succeeding element.

This document contains details about preparation of each – Work Breakdown Structure, Network Activity Diagram, and Project Schedule.

Unlike the Project Proposal deliverable, this deliverable should be submitted using two files.

File#1: Should be a Microsoft Project File (.mpp) with all activities listed (summary and detailed activities properly indented, scheduled start and finish dates, predecessors and successors set, and resources assigned. The file should be submitted in the Gantt chart view.

File#2: Should be a word document, summarizing the work done in the .mpp file. Following sections are required in the Word document.

Deliverable Requirements

Following are the requirements / required sections for each of the two files mentioned above.

FILE #1: .MPP

1. **Project Title:** First row in the Gantt chart view should be the project title

2. **Summary and Detailed activities:** As mentioned below, the WBS should have at least 3 levels and summary and detailed activities should be clearly indicated in the Gantt chart view. If done correctly, the summary activities should appear in Bold and the detailed activities should be in regular font.
3. **Dates:** Each activity shown below should have a start and end date listed in the schedule. This is the scheduled start and end date.
4. **Predecessor:** Ideally only the first activity should not have a predecessor. Every other activity should have a predecessor. Summary activities may not have a predecessor, however all detailed activities should have a predecessor or successor so a Critical Path can be determined.
5. **Resources:** List resources in the resources column for each activity.
6. **Submission: When submitting this file in Canvas, make sure the file name is as follows: 'F2021-Section#-Team#-SummarizedProjectTitle'.mpp**

FILE #2: .DOC

- A. **Title Page :** Project title page showing Project name, Project customer, and Team members
- B. **Summary of Activities and Work Breakdown Structure (WBS):** Describe the team's approach in determining the WBS for the project. Provide a summary of the activities within the project. Include the Project WBS in this section of the report. You will need to copy/paste or include an image of WBS from Microsoft Project in this section. Some reference information is provided below to assist with this section of the deliverable.

Reference information: Work Breakdown structure is the decomposition of work to be performed in the project. The top level of the work breakdown structure indicates high level tasks within the project. The second level becomes more specific as those tasks are decomposed into sub tasks. All subsequent levels show more specific tasks, with the final level showing tasks / activities at acceptable granular level. These are the activities that feed into the project schedule. All interdependencies between the lowest level activities also become apparent in the work breakdown structure.

Create a Work Breakdown Structure (WBS) for the selected project. WBS must have at least 3 levels and should show at least 40 activities. Having a significant number of activities will enable you to create a network activity diagram (next section) and set the stage for creating a practical schedule including predecessors and successors.

- C. **Network Activity Diagram Summary:** Teams should describe the Network Activity Diagram in this section. A snapshot of the network diagram may also be included in this section. Network Activity Diagram is visible in Microsoft Project once all activities are entered and sequenced. Following questions should be addressed in this section:

- a. What is the first activity in the project?
- b. What is the last activity in the project?
- c. What is the critical path?
- d. How many activities have a slack?
- e. What are some of the activities that can be done in parallel?
- f. Which activity has the longest duration (hint: this should be on the critical path)

Some reference information is provided below to assist with this section of the deliverable.

Reference information: For this assignment, you need to create a Network Activity Chart/Diagram based on the activities from Work Breakdown Structure. This deliverable must be based on the lowest level of the Work Breakdown Schedule. For example, if there are 3 levels in WBS, this deliverable must be based on level 3. If there are 4 levels in WBS, the Network Activity Chart must be based on level 4 of the WBS. You will also need to assign duration to the activities to come up with a slack and critical path in the project. This will help in creating the project schedule which is also a part of this second deliverable.

Deliverables must be clear and represent both, the activities that can be done concurrently, and the ones that can be done in sequence.

- D. **Project Schedule Summary:** Teams should provide a summary of the project schedule in this section. Project schedule will be available in Microsoft Project if all activities and predecessors are entered correctly. Following questions should be addressed in this section:
- a. What is the scheduled start date of the project, and what is the scheduled end date of the project?
 - b. What are the start and end dates for summary activities?
 - c. What are the start and end dates for critical path activities?
 - d. Is there a way to shorten the schedule and complete the project ahead of schedule? What strategies would the team employ to shorten the schedule? Which activities should be shortened to bring the scheduled completion date in?
 - e. Please make sure the following columns are visible in the project schedule in the .mpp file:
 - i. Activity name
 - ii. Start date
 - iii. End date
 - iv. Duration
 - v. Predecessors
 - vi. Resources
 - vii. Early start

- viii. Early finish
- ix. Late start
- x. Late finish

E. Submission: When submitting this file in Canvas, make sure the file name is as follows: 'F2021-Section#-Team#-SummarizedProjectTitle'.doc

APPROVAL SECTION:

Approval Section: This section should include each team member's name and initials. The goal for this section is to demonstrate each team member's agreement to the contents of the deliverable.

Following verbiage is required for this section:

"I affirm that I have contributed to this deliverable project, including participating in discussions, decision-making, and developing the content for the deliverable.