

BAXI3533 - AI Project Management

Week 04 Lab Manual - Work Breakdown Structure (WBS) & Deliverables Refinement

Learning Objectives

By the end of this lab, you will be able to:

- Create a structured **Work Breakdown Structure (WBS)** for your project.
- Organize and manage tasks using **Microsoft Planner** or **Excel**.
- Refine your **project deliverables and milestones** from your previous schedule.
- Update and share your project files independently using **GitHub** and **Teams**.

This lab is designed for **independent completion**. Follow each section carefully and use your team's collaboration tools to share progress.

Background / Context

In Week 03, you created your project schedule and defined the scope of work.

This week, you will decompose that schedule into detailed **work packages** and subtasks – creating a **Work Breakdown Structure (WBS)**.

The WBS helps you visualize all the work needed to complete your project and ensures every deliverable is accounted for.

Example project: *AI-Powered Food Waste Predictor*

Part 1 - Prepare Your Workspace

Step	Action	Tool
1	Open your team's Microsoft Planner plan or Excel file from Week 03.	Planner / Excel
2	Add a new section or worksheet titled " Week 04 - WBS Tasks. "	Planner / Excel
3	In your GitHub repository, create a new file: <code>/planning/WBS_Week04.md</code> .	GitHub
4	Post a short update in your Teams channel announcing you've started Week 04 work.	Teams

Part 2 - Build Your Work Breakdown Structure

Step A: Identify Major Phases

From your previous schedule, list your project's major phases.

For example:

1. Requirements C Data
2. Model Design C Training
3. Evaluation C Dashboard
4. Reporting C Submission

Step B: Break Each Phase into Subtasks

Under each phase, list detailed subtasks or deliverables (Specific to your own project, the following is only an example).

WBS ID	Task	Deliverable	Owner	Start	End
1.1	Gather dataset sources	Data source list	Alice	06 Oct	08 Oct
1.2	Clean and label data	Processed dataset	Ben	09 Oct	11 Oct
2.1	Select ML algorithm	Model plan	Chloe	12 Oct	14 Oct
2.2	Train predictive model	Trained model	David	15 Oct	17 Oct
3.1	Build dashboard prototype	UI draft	Ella	18 Oct	21 Oct
4.1	Prepare final report	Presentation slides	Team	22 Oct	24 Oct

Use this table format either in **Planner** or **Excel**:

- In **Planner**, add tasks with start/end dates and assign team members.
- In **Excel**, list tasks in rows and add conditional formatting to create a visual timeline.

Part 3 - Refine Deliverables and Milestones

1. Review all deliverables identified in your WBS.
2. Add milestone markers for each major phase.
3. In Planner, use **Labels** (e.g., “Milestone”, “Documentation”, “Testing”) to tag key tasks.
4. Ensure each deliverable has an output file or document listed in your GitHub repository.

Example milestones:

- Requirement Phase Complete - 10 Oct
- Model Training Complete - 17 Oct
- Final Presentation Ready - 24 Oct

Part 4 – Update Documentation

In your new GitHub file /planning/WBS_Week04.md, record your WBS like the given example below:

```
# Week 04 - Work Breakdown Structure

## Major Phases

1. Requirements C Data
2. Model Design C Training
3. Evaluation C Dashboard
4. Reporting C Submission

## Subtasks

| WBS ID | Task | Deliverable | Owner | Start | End |
|-----|-----|-----|-----|-----|
| 1.1 | Gather dataset sources | Data source list | Alice | 06 Oct | 08 Oct |
| 1.2 | Clean and label data | Processed dataset | Ben | 09 Oct | 11 Oct |
| 2.1 | Select ML algorithm | Model plan | Chloe | 12 Oct | 14 Oct |
| 2.2 | Train predictive model | Trained model | David | 15 Oct | 17 Oct |
| 3.1 | Build dashboard prototype | UI draft | Ella | 18 Oct | 21 Oct |
| 4.1 | Prepare final report | Presentation slides | Team | 22 Oct | 24 Oct |

## Deliverables and Milestones

- Requirement Phase Complete (10 Oct)
- Model Training Complete (17 Oct)
- Final Presentation Ready (24 Oct)
```

Then push your updates:

```
git add .
```

```
git commit -m "Added Week 04 WBS and refined deliverables"
```

```
git push origin main
```

Part 5 - Collaborate and Reflect

- Share your WBS progress in your **Teams** channel.
 - Comment on or react to at least two other teams' WBS updates.
 - Keep a personal note of any adjustments your team decides to make.
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✓ Submission Checklist

Deliverable	Format	Location
WBS Document	.md	/planning/WBS_Week04.md
WBS Screenshot (Planner/Excel)	.png	/docs/screenshots/
Teams Peer Review	Screenshot / Post	Teams channel
Individual Reflection	.md	/individual_logs/Reflection_Week04_<Name>.md

Note: Submit the individual reflection document to ULearn.

Reflection

Record your responses in your reflection log:

- Which phase of your project had the most subtasks?

The Frontend & Dashboard Development phase had the most subtasks. It involved creating the user interface, building the web components, and linking everything with the backend and AI models. This part required a lot of teamwork to make sure the dashboard looked good and worked smoothly.

- How did breaking tasks down help you plan better?

Breaking the project into smaller tasks made everything easier to understand and manage. It helped us see which tasks depend on each other, assign work more clearly, and set more realistic deadlines. It also improved our teamwork because everyone knew what to focus on.

- What would you adjust in your project schedule next week?

Next week, we'll review the timeline for AI Model Development since training and testing might take more time. We also plan to add some buffer time before testing to handle any possible bugs or integration issues.

Useful Links

- Microsoft Planner Overview: <https://support.microsoft.com/office/microsoft-planner-overview-6274f0de-4e3b-46e6-8e79-13f792b4eacd>
- Excel Project Templates: <https://templates.office.com/>
- GitHub Documentation: <https://docs.github.com/en>
- Microsoft Teams Collaboration: <https://learn.microsoft.com/en-us/microsoftteams/>