**Learning Journal – 4**

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**Course:** SOEN 6841

**Journal URL:** https://github.com/Abhigyan-singh2001/COMP6841\_Learning\_Journals

**Dates Rage of activities:** 23/02/2025 – 16/03/2025

**Date of the journal:** 16/03/2025

**Key Concepts Learned**

I focused on revising **Chapter 7: Project Monitoring & Control** and **Chapter 8: Project Closure**.

* **Chapter 7 (Project Monitoring & Control)**
  + Tracking project progress using **baseline tracking** and comparing actual vs. planned milestones.
  + Understanding **Earned Value Management (EVM)** for analyzing budget and schedule variances.
  + Differentiating between **monitoring (data collection)** and **control (taking corrective actions)**.
  + Managing key project aspects: **performance, cost, time, quality, scope, risk, and team coordination**.
  + Steps in monitoring and control: **establish baselines, track progress, analyze deviations, and implement corrective actions**.
* **Chapter 8 (Project Closure)**
  + Ensuring **all deliverables, reports, and objectives are finalized**.
  + **Archiving** final project files, including source code and essential data, while filtering unnecessary information.
  + **Lessons learned documentation** for improving future projects.
  + Conducting a **project completion review** to verify compliance with requirements.
  + **Knowledge transfer** to future teams through properly archived insights and project data.

**Application in Real Projects**

* **Risk Analysis & WBS for Deliverable 2**
  + This week, I worked on **Deliverable 2** of our project, focusing on **risk analysis and project planning (Work Breakdown Structure - WBS)**.
  + I analyzed potential risks for our **food waste reduction and redistribution platform**, including **logistical risks, regulatory compliance, and stakeholder challenges**.
  + Developed a **Work Breakdown Structure (WBS)** by dividing the project into smaller, manageable components and estimating costs for each phase.
* **Practical Relevance**
  + In real-world projects, companies use **risk management frameworks** to identify, assess, and mitigate risks.
  + **Tech companies** (Google, Microsoft) use WBS to organize software development cycles into **sprints, milestones, and resource allocation**.
  + Large-scale **infrastructure projects** (highways, airports) implement risk analysis to avoid cost overruns and delays.

**Peer Interactions**

* Our team collaborated on **Deliverable 2**, discussing key aspects of risk analysis and project planning.
* We had a **team meeting** where each member contributed ideas and perspectives on breaking down the project into smaller parts.
* We scheduled a **meeting with the TA** to clarify doubts and get feedback on our deliverable.
* The meeting helped refine our approach to **risk identification, mitigation strategies, and cost estimation**.

**Challenges Faced**

* **Risk Analysis**
  + Analyzing the risks for our platform was challenging since it involves multiple stakeholders (**grocery stores, NGOs, consumers, and donors**).
  + Determining the probability and impact of risks such as **supply chain disruptions, regulatory hurdles, and financial constraints** was difficult.
* **Work Breakdown & Cost Estimation**
  + Breaking the project into smaller tasks and estimating **costs for each phase** required extensive assumptions.
  + It was difficult to determine the **financial requirements** for different aspects, including **AI model development, cloud infrastructure, and operational costs**.
  + Finding a balance between **granularity (too many small tasks) and simplicity (broad categories)** in the WBS was a challenge.

**Personal Development Activities**

* **Reviewed past coursework** to reinforce concepts from **Chapters 7 and 8**.
* Improved my understanding of **risk management techniques** by researching real-world case studies.
* Practiced **collaborative problem-solving** through team discussions and the TA meeting.
* Enhanced my skills in **cost estimation and project breakdown techniques** by applying them to our project.

**Goals for the Next Week**

* **Refine Deliverable 2** based on the feedback from the TA.
* Work with the team to finalize **risk mitigation strategies** and improve the project’s **Work Breakdown Structure**.
* Develop a **cost estimation model** using real-world data on AI development, cloud storage, and operational expenses.
* Explore **project management software** (Jira, Microsoft Project) to improve WBS structuring and cost tracking.
* Prepare for upcoming project deadlines by setting clear **weekly milestones and deliverables**.