**Learning Journal Template**

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**Course:** Software Project Management (SOEN 6841)

**Journal URL:** https://github.com/nidhip6/SOEN-6841/blob/main/LearningJournal1.docx

**Dates Rage of activities:** 9th September 2024 to 20th September 2024

**Date of the journal:** 21st September 2024

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| **Key Concepts Learned:** | **Application in Real Projects:** | **Peer Interactions:** | **Challenges Faced:** | **Personal development activities:** | **Goals for the Next Week:** |
| ***Week 1*** | | | | | |
| **Project Definition:**  A project is distinguished from other undertakings by its temporary and unique characteristics.  **Project Management:**  Project management encompasses a series of subprocesses and phases, spanning from requirements definition to software maintenance. | **Project management** is a versatile approach applicable to any project, providing guidance throughout the development and release phases.  **Example:**  The launch of a CRM software typically involves a sequence of stages: design, development, testing, and maintenance. | Examine the case study and discuss the role of project management in guiding software projects. Explore the benefits and challenges associated with effective project management. | I found the project management concepts covered this week to be quite accessible.  We delved into the specific steps involved in initiating a project. | **Goal:** To strengthen my skills in data science and machine learning. | -Thoroughly review the course textbook  -Gain a solid understanding of the key concepts  -Complete any assigned readings or exercises |
| **Project Lifecycle:**  The project lifecycle typically comprises phases such as initiation, design, development, and maintenance.  **Initiation Tasks:**  Initiation tasks often involve the creation of schedule estimates, a project charter, and cost estimations.  **Software Product Initiation:**  For software products, initiation entails market analysis, development estimates, feature planning, and delivery considerations. | **Project management** encompasses various aspects, including scheduling, risk management, and quality assurance.  **Initiation**, a crucial phase, entails tasks such as:  -Creating schedule estimates  -Developing a project charter  -Estimating project costs  **For software projects**, the initiation phase often involves:  -Conducting market analysis  -Generating development estimates  -Defining project features  -Establishing success metrics |  | A more hands-on approach would likely deepen my understanding of these concepts.  I anticipate applying these project management principles to an upcoming course project. | **Activity:** I am currently enrolled in a comprehensive data science course that covers topics such as Python programming, data cleaning, exploratory data analysis, statistical modeling, and machine learning algorithms. Through hands-on projects and assignments, I am gaining practical experience in applying data science techniques to real-world problems. This course is equipping me with the necessary tools to analyze complex datasets, build predictive models, and make data-driven decisions. |  |
| ***Week 2*** | | | | | |
| **Effort Estimation** is a pivotal aspect of the design phase, providing essential guidance for project development.  **Estimation by Analogy** leverages data from previous projects, applying a multiplication factor to estimate effort.  **Expert Judgment** relies on the collective experience of the team to determine effort estimates. | **Effort Estimation:** The team employs a combination of **Analogy** and **Expert Judgment** to estimate project effort. By analyzing past projects and leveraging the expertise of team members, they can make informed predictions. | Discuss the various cost estimation methods available to project managers. | I focused on understanding effort estimation techniques, such as Function Point Analysis, COCOMO, and Wide Band Delphi**.**  I also explored concepts related to resource allocation and loading factors, which are essential for optimizing workforce capacity. | I participated in collaborative learning sessions with my classmates, focusing on effort estimation techniques such as Function Point Analysis, COCOMO, and Wide Band Delphi. These sessions aimed to strengthen my project planning skills and deepen my understanding of these valuable tools. | -Read the next chapter of the textbook  -Begin working on the project initiation and market analysis tasks |
| **Function Point Analysis (FPA)** is a method for measuring software based on user features. It calculates Unadjusted Function Points (UFP) by considering five types: Input Logical Files (ILF), External Interfaces (EIF), and External Outputs (EI).  **The Delphi Method** is a consensus-building technique that involves multiple rounds of expert input to arrive at effort estimates. | **Function Point Analysis (FPA):** FPA involves counting five distinct function types: **Input Logical Files (ILF)**, **External Interfaces (EIF)**, **External Outputs (EI)**, **External Queries (EQ)**, and **External Files (EO)**. This analysis helps determine the **Unadjusted Function Points (UFP)**, which represent the software's user-focused features. | Explore how they evaluate different approaches to select the most appropriate one for their specific projects. Gain insights into effective strategies for achieving accurate and reliable project cost estimation. | I recognized that these topics require additional study and practice to fully grasp and apply effectively in project planning and management. |  |  |
| **COCOMO2 Cost Modeling** is an algorithmic model that incorporates various sub-models, including application composition, early design, reuse, and post-architecture.  **Key terms:** COCOMO2, Algorithmic Cost Modeling, FPA, Delphi, UFP | **COCOMO2 Cost Modeling:** COCOMO2's comprehensive approach incorporates multiple sub-models, including **Application Composition**, **Early Design**, **Reuse**, and **Post Architecture**. By considering these factors throughout the project, COCOMO2 enhances the accuracy of cost estimation. |  |  |  |  |