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**Student Name: Omnia Alam (40261762)**

**SOEN 6481: Software Project Management**

**Journal URL:** [**hhttps://github.com/OmniaAlam/SOEN6481**](https://github.com/AlamOmnia/SOEN6481)

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**Key Concepts Learned**

**Project Fundamentals**

* Understood the definition and characteristics of a project.
* Recognized the unique aspects of software projects.
* Familiarized with software project management processes.
* Emphasized integration of people, processes, tools, and technology.
* The importance of effective project managers and their key characteristics.

**Project Initiation and Planning**

* Learned about project initiation, feasibility analysis, and stakeholder identification.
* Understood the purpose and content of a project charter and initiation document.
* Grasped the concept of project scope, objectives, and their documentation.
* Recognized activities involved during project initiation.

**Effort, Cost, Schedule, and Resource Estimation**

* Explored techniques for effort estimation, such as expert judgment and parametric estimation.
* Understood cost estimation methods like **Function Point Analysis and COCOMO.**
* Learned about schedule estimation techniques and the importance of accurate predictions.
* Recognized resource estimation approaches and their significance in project planning.

**Risk Management and Configuration Management**

* Understood project risks and strategies to deal with them effectively.
* Learned about the Configuration Management System and its components.
* Recognized the importance of configuration management for software projects.
* Explored strategies for successful deployment of a Configuration Management System.

**Software Project Planning and Monitoring**

* Understood key components of a software project plan.
* Learned about different types of software project plans and their purposes.
* Recognized the importance of project data and methods to obtain and manage it effectively.
* Understood the significance of monitoring and controlling project attributes.

**Handling Schedule and Cost Deviations**

* Explored measures to identify and address schedule and cost deviations.
* Understood the importance of communication and stakeholder engagement in managing deviations.
* Learned about risk management strategies to mitigate the impact of deviations.

**Importance of Project Data and Resource Release**

* Understood the importance of project data for various project management activities.
* Recognized the significance of resource release for optimal project performance.
* Learned about steps to obtain project data and the importance of data privacy and security.
* Importance of regular review and update of project data and processes for continuous improvement.

**Application in Real Projects:**

We get to work on an innovative project “Automated Artificial Intelligent Customer Service Assistant (AAICS)” and a poster “ Controlling huge application”. We were able to use all the concepts that we have learned during the course. Here are some concepts that we used in the project as well as in the posters for creating project proposal:

Problem Identification: Objective is to develop AAICS to improve operations, especially in finance.

* **Key Objectives of AAICS:** Adapt to languages and accents, understand complex inquiries, fulfill customer requests, maintain contextual conversations, and personalize interactions.
* **Opportunity Statement:** AI offers transformative opportunities in customer service, integrating NLP, speech recognition, and deep learning for efficiency and satisfaction.
* **Current Scope:** Limited to finance, focusing on customer service transformation with NLP, Speech Recognition, and ML.
* **Key Functionalities:** Multilingual support, contextual understanding, seamless human-agent transition, and continuous learning.
* **Risk Assessment and Mitigation:** Identifies technical, resource, timeline, financial, market, and regulatory risks, with corresponding mitigation strategies.
* **Project Plan Overview:** Phases cover initiation, design, core functionality development, feature development, integration, testing, deployment, maintenance, and documentation.
* **Budgeting:** Estimates effort for each phase, with emphasis on core functionality and feature development phases due to significant development efforts.

**Peer Interactions:**

During the course, working as a group enabled us to establish effective communication channels and maintain a centralized repository for our contributions. We utilized the following tools for collaboration:

* GitHub: Used for journaling our progress.
* OneDrive: Utilized as a platform for contributing and sharing files.
* WhatsApp: Employed for real-time communication among team members.

**Challenges Faced:**

Managing projects can be incredibly challenging, especially when it comes to coordinating schedules with other group members. I've often found myself struggling to juggle multiple responsibilities, leading to occasional overbooking, and resulting in schedule conflicts.

**Personal Development activities:**

In addition to learning new material, being part of a group allowed me to enhance my teamwork capabilities. Moreover, it provided me with an opportunity to refine my organizational skills.

**Appreciations:**

These fundamental concepts are invaluable for the successful management of any project. When applied correctly and in an appropriate manner, they pave the way for significant achievements. A heartfelt thank you is extended to Professor Joumana Dargham for delivering such an exceptional course and for dedicating her efforts to ensuring its excellence. Gratitude is also extended to all the teaching assistants who have devoted countless hours to providing assistance to all the students. Their collective contributions have greatly enriched the learning experience and fostered growth and success.

**THANK YOU!**