Learning Journal

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Course: SOEN 6841(Software Project Management)

Journal URL: https://github.com/AbhiMavani/SOEN6841

Week 2: Jan 28- Feb. 3

Key Concepts Learned:

1. Effort and Cost Estimation in Software Projects:
   - Software projects are effort-driven, primarily relying on human effort.
   - Estimating effort for software projects is challenging due to the intangible nature of the outcomes.
   - Various estimation techniques include experience-based, algorithmic, and modeling approaches.

2. Experience-Based Estimation Approaches:
   - Estimation by Analogy involves comparing a new project to similar past projects.
   - The process includes detailed size analysis, multiplication factors, and building up estimates.

3. Function Point Analysis (FPA):
   - FPA provides a standardized method for measuring software functionality.
   - Objectives include measuring user-requested functionality and being independent of technology.
   - Components of FPA include Internal Logical Files (ILF), External Interface Files (EIF), External Input (EI), External Output (EO), and External Inquiry (EQ).

4. COCOMO (Constructive Cost Model):
   - COCOMO is an empirical model based on project experience for estimating effort and cost.
   - COCOMO 2 incorporates different models for various stages of software development.

5. Risk Management in Software Projects:
   - Risks can impact product quality or the rate of production in a project.
   - Risk assessment involves identification, analysis, and prioritization of risks.
   - Risk response strategies include acceptance, avoidance, transference, and mitigation.

6. Risk Control:

   - Risk planning involves developing strategies to manage identified risks.
   - Mitigation aims to reduce the probability and/or consequences of adverse risks.

Application in Real Projects:

- Effort Estimation: Apply estimation techniques like Estimation by Analogy or FPA based on project requirements.
- Risk Management: Implement risk identification and mitigation strategies to handle uncertainties in project timelines and outcomes.

Peer Interactions:

- Had insightful discussions with peers regarding the challenges of applying experience-based techniques in rapidly evolving software development environments.

Challenges Faced:

- Understanding the complexities of algorithmic cost modeling, especially in determining accurate values for attributes like size, development flexibility, and team cohesion.

Personal Development Activities:

- Reviewed additional resources on COCOMO and engaged in a practical exercise to apply FPA to a hypothetical project.

Goals for the Next Week:

1. Deepen understanding of algorithmic cost modeling.
2. Explore advanced risk management strategies beyond the basics covered in the course.
3. Practice applying estimation techniques to real-world case studies.