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Course: SOEN 6841 Software Project Management

Journal URL: https://github.com/devansh-akruvala/SOEN_6841_Software_Project_Management

Week 2: 25/01/2024 – 01/02/2024

Date: 29/01/2024

Key Concepts Learned:
- Estimation techniques can be divided in to
  - Experience Based techniques
    - Estimation by Analogy
    - Estimation by judgement
      - FPA
      - Delphi
  - Algo Based techniques
    - COCOMO Model

- **Estimation By analogy:** Estimate new projects by comparing them to similar past projects, preferably decomposing the estimate.
- **FPA:** FPA = UFP * VAF (CAF)
  For Calculating UFP there is a table where there are 5 function types and for each type is ranked low, avg, high.
  For calculating VAF there are 14 general system characteristics is rated on a scale from 0 to 5.
  VAF = (TDI*0.01) + 0.65
- **DELPHI:** The process involves individual estimation by team members followed by a comparison meeting to discuss differences. The individual estimates are averaged to arrive at a agreement estimate accepted by the group. Finally, a range of effort estimation values is calculated based this agreement.
- **COCOMO:**
  - Basic COCOMO:
    $$Effort = 2.94 * EAF * (KLOC)^E$$
    $$Duration = 3.67 * (Effort)^{SE}$$
  - Intermediate COCOMO:
    $$E = a(KLOC)^{(E)}$$

Software Project Type	a	E
Organic	3.2	1.05
Semi-detached	3.0	1.12
Embedded	2.8	1.20

- When to use which technique:

	Project details	Estimation technique
1	Historical project data + current project data	FPA
2	Current project data	COCOMO, Wide Band Delphi
3	No data	No technique can be used

Application in Real Projects:

The Estimation Project Study helps in the initial phase by providing a rough estimate of the resources required for the project.

Peer Interactions:
- Discussed Case study with peers
- Started working on projects and discussed many points in problem Identification and Market Analysis.

Challenges Faced:
- COCOMO and FPA Calculations require some clarification.

Personal development activities:
- Read some articles on Project Management and continue learning the Project Management Tools

Goals for the Next Week:
- Finish Project
- Read Chapter 4 and 5