

## Learning Journal Week 18 Feb – 9 March

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**Course:** Software Project Management

**Journal URL:** <https://github.com/raemonx/SOEN6841/tree/main>

**Weeks:** 19 Feb – 9 Mar (Chapter 7,8)

**Date:** March 8 , March 9

### Key Concepts Learned/Analysed:

- ❖ **Project plan** - Baseline against which progress of any project is measured.
- ❖ **Earned Value Management (EVM)** - Best tool to measure both schedule and budget progress for any project as well as for project tasks.
- ❖ **Monitoring** - Collecting sufficient data to measure progress and implementation of the plan correctly.
- ❖ **Control** - Process of ensuring that the project delivers on schedule and making changes when necessary.
  - Performance
  - Costs
  - Time
  - Quality
- ❖ **What is controlled?** – Scope, Risk and Team
- ❖ **Designing a Project Monitoring and Control System**
  - **Step 1 - Establish baselines**
    - Cost (budgets)
    - Time (schedules)
    - Performance (specifications, quality plan)
    - Scope (WBS)
  - **Step 2 - Monitor & measure performance**
    - Percentage completion,
    - Cost expended
    - Quality tests,
    - Scope change reports
  - **Step 3 - Compare performance to baselines**
    - Variance analysis
    - Progress reports and forecasts
    - Tools
    - Causes & effects

➤ **Step 4 - Take corrective action**

- Re-planning activities
- Change and reasons for selected corrective action
- Revising the original plan
- Terminating the project (Extreme Situations)

❖ **Progress Monitoring**

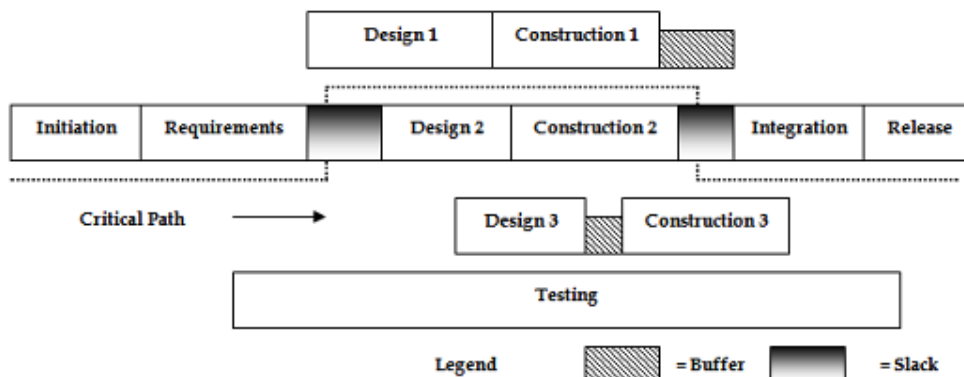
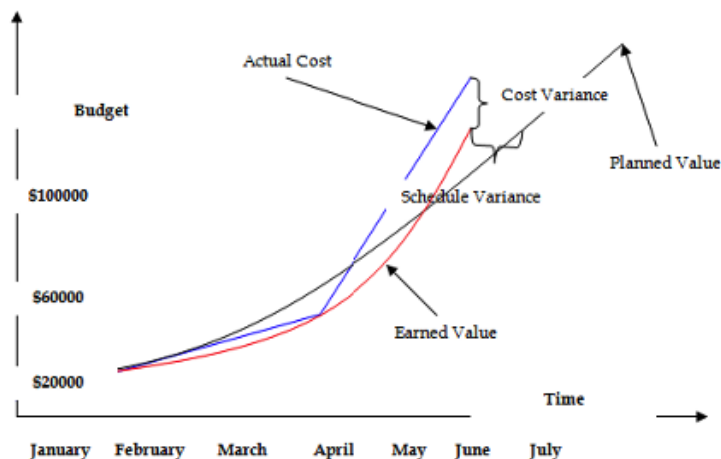
- Team meetings
- regular progress reports
- specific technical meetings

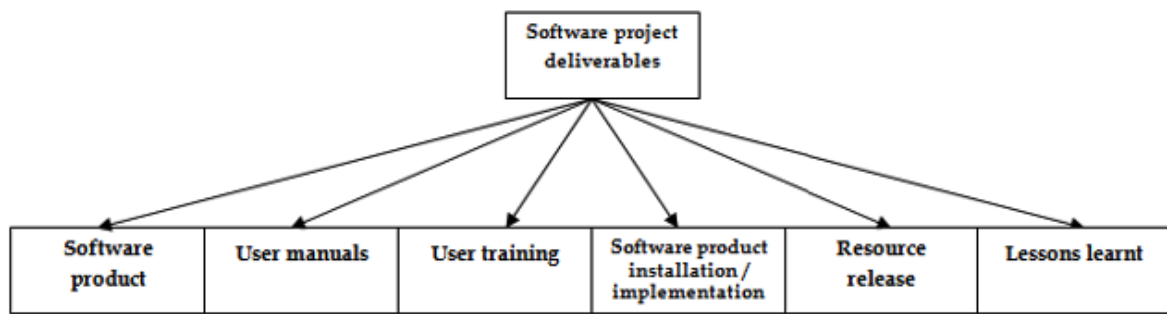
❖ **Tools for monitoring and Control**

- S Curve
- Earned Value Analysis (EVA)

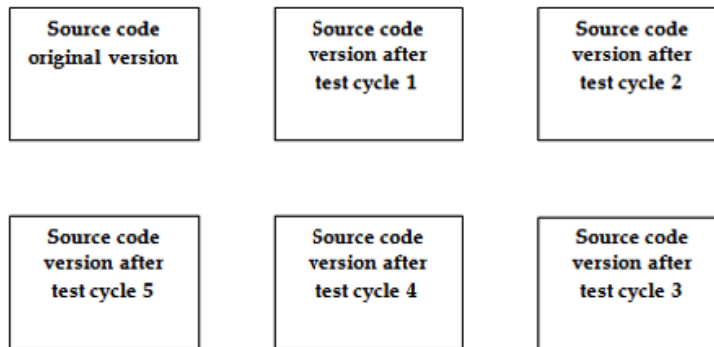
❖ **Objectives of EVA**

- To determine schedule variance
- To determine cost variance
- Variances must be tracked and reported
- They should be mitigated through corrective actions



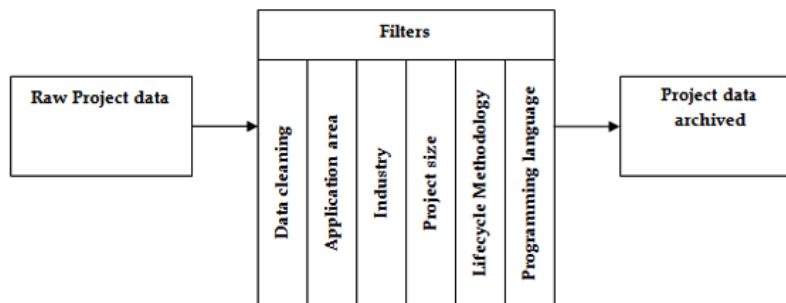


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## Source code version management on project

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## Project measured metrics data filtration for archiving

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- ❖ **New Terms** - Project Plan, Baselines, Schedule variance, Cost variance, S-Curve
- ❖ **Methodologies** - Earned Value Management (EVM), Designing a Project Monitoring and Control System, Earned Value Analysis (EVA), Progress Monitoring

## Application in Real Projects:

Let us consider we are managing a real-world project.

### ❖ **Creating a Project Plan:**

- **Benefit:** Project plan will provide a roadmap for team objectives. This will help setting milestones.
- **Challenge:** Might require assumptions and replanning needed.

### ❖ **Setting Baselines:**

- **Benefit:** Setting a baseline for performance, scope, time, and cost, thus measuring deviations.
- **Challenge:** Baselines are often correct and require adjustments.

### ❖ **Managing Schedule Variance:**

- **Benefit:** Helps to Identify and mitigate activities to the planned schedule.
- **Challenge:** If well-defined schedule is not present , schedule variance is expected.

### ❖ **Estimating Cost Variance:**

- **Benefit:** Cost variance helps in estimation of budget health and financial performance.
- **Challenge:** Wrong initial cost estimates or unforeseen expenses.

### ❖ **Using S Curve:**

- **Benefit:** It provides a visual representation of project progress, expenditures, etc.
- **Challenge:** Consistent data collection , complex visuals, etc.

## Peer Interactions:

- ❖ Collaborated on a complex project timeline, where we brainstormed and established baselines.
- ❖ We used Python and R to interpret S curves and other performance data.
- ❖ Had discussion which led to insights on incorporating contingency plans in project baselines

### **Challenges Faced:**

- ❖ I faced some issues while understanding EVA and S Curve
- ❖ I tried to create a project plan but faced difficulty in setting the assumptions
- ❖ I found some trouble in plotting the S Curve and understanding the visual representations.

### **Personal development activities:**

- ❖ Most of the first week was spent for preparing for Midterm Exams.
- ❖ I searched the web to get sample project plans available.
- ❖ Used MS Excel to create a S Curve by setting the required parameters.
- ❖ I also tried to perform EVA on a sample project plan.
- ❖ I also studied the case study provided and understand how the different methodologies were performed for better project control.

### **Goals for the Next Week:**

- Most of my next week will be spent on preparing the deliverables of Project part II.
- Moreover, I will try to understand the tools like S Curve and EVA.
- I will also try to plot S Curve using different plotting tools using sample project schedules.
- I will spend some time to study advanced Earned Value Management (EVM) techniques and risk management.
- Additionally, I will discuss more on project baselines and monitoring with a peer.
- I will also read the book and understand more on the chapters 7-8 to better understand the concepts.