

SESSION 3

Ask An Old Guy

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What We'll Cover

1. Understanding IT Career Paths & Industry Evolution
2. Soft Skills, Communication, and Adapting to Change
3. Troubleshooting Strategies and Project Management
4. Managing Technical Debt and Effective Escalation
5. Scalability, Resilience, and Security
6. Team Dynamics, Vendor Selection, and Leading IT Teams
7. Career Growth, Ethics in IT, and Learning from Failure

Troubleshooting Strategies

Why Troubleshooting Skills Are Critical

- Every IT professional will encounter technical problems—it's inevitable.
- Knowing how to systematically diagnose and resolve issues is crucial for maintaining system uptime and performance.
- Troubleshooting isn't just about fixing problems; it's about preventing them from recurring.

A Step-by-Step Troubleshooting Framework

1. **Identify the problem:** Collect data and gather as much information as possible.
2. **Hypothesize possible causes:** Analyze the data to identify potential root causes.
3. **Test hypotheses:** Conduct tests or attempt fixes in a controlled environment.
4. **Implement the solution:** Apply the solution in the production environment.
5. **Monitor results:** Observe system performance after the fix and verify that the issue has been resolved.
6. **Document the issue:** Record the problem, solution, and any follow-up actions.

Common Troubleshooting Mistakes

- Skipping steps or jumping to conclusions without proper testing
- Making assumptions based on incomplete data
- Not documenting troubleshooting steps, leading to lost knowledge
- Ignoring the importance of collaboration with other teams

Activity: Internet Connectivity Issue

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Problem: A corporate office is experiencing intermittent internet connectivity issues. Employees report frequent drops in their network connection, slow internet speeds, and problems accessing critical online applications. Some users cannot connect to the VPN, while others face inconsistent connection quality.

Symptoms:

- Users report connectivity loss every 10-15 minutes.
- Internet speed tests show bandwidth fluctuating dramatically.
- VPN connections are frequently dropped.
- Network latency is high, especially during video calls and file uploads.
- Some employees report being unable to access external websites, while internal resources seem unaffected.

Goal: work through the troubleshooting process to identify the root cause of the connectivity issues and propose a solution

Project Management in IT

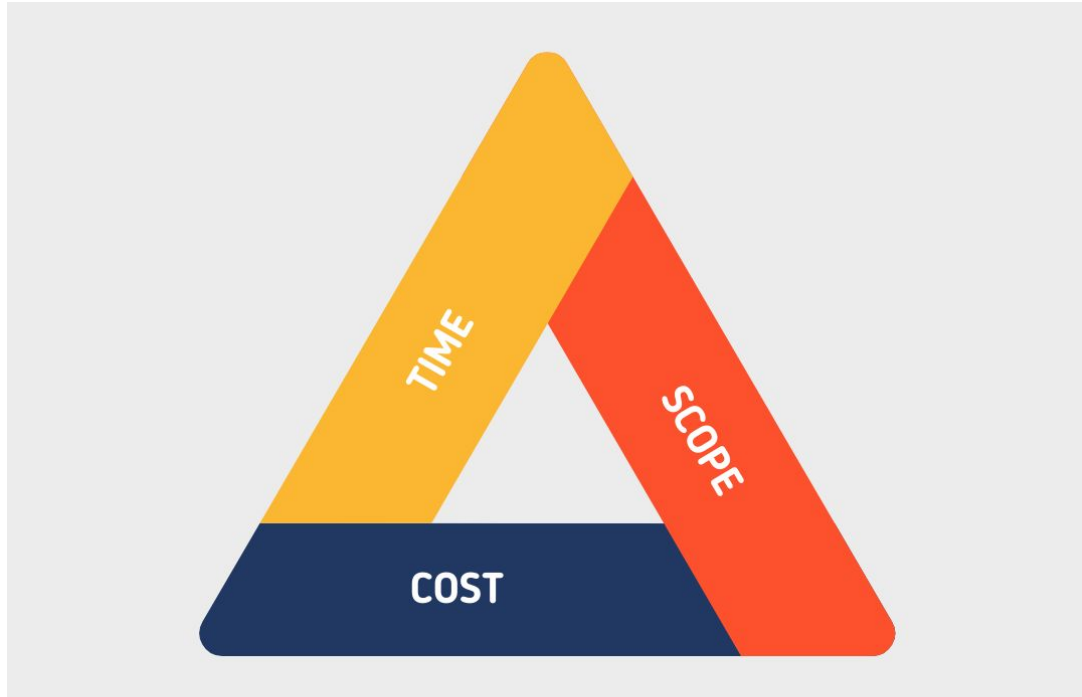
The Importance of Project Management in IT

- IT projects are complex, involving multiple teams, deadlines, budgets, and risks
- Project management ensures that projects are delivered on time, within scope, and within budget
- Strong project management helps mitigate risks and handle challenges proactively

Popular Project Management Approaches

- Waterfall: A linear, sequential approach, good for well-defined projects
- Agile: An iterative, flexible approach, ideal for software development
- Scrum: A subset of Agile, focused on short, time-boxed sprints and regular feedback
- Kanban: A visual workflow management method that focuses on continuous delivery

Project Management Triangle



Common Challenges in IT Projects

- Scope creep: Uncontrolled changes or continuous growth in project scope
- Stakeholder misalignment: Disagreements or misunderstandings between key stakeholders
- Resource constraints: Limited availability of team members or budget
- Delays and missed deadlines

Ask an old guy!

