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## Project Cost Estimation and Management

### Length: 3 Days

This course provides tools necessary to develop reliable software project cost estimates by assessing necessary project resources, applying one or more cost estimating methods, and adjusting the estimates based on resource availability and project risk. Students learn a process for evaluating the quality of cost estimates prepared by others.

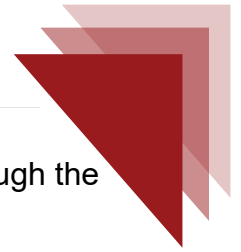
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### Learning Objectives

- The ability to determine the need for, and plan for necessary project personnel, equipment, and material resources
  - An understanding of the three basic cost estimating methods contained in the PMBOK®, and the advantages and disadvantages of each
  - The ability to prepare a basic cost estimate using bottoms-up estimating
  - The knowledge to evaluate the adequacy of a cost estimate prepared by a project team member or other source
  - The ability to prepare a project cost baseline, allocating estimated costs over the life-cycle of the project.
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### Lesson Topics

- **Resource Estimation** - how to use the project work breakdown structure, scope of work, and project schedule to assist in estimating resource requirements
- **Analogy and Parametric Estimating** - how to use information from previous projects and industry standards to estimate costs for a new project
- **Bottoms-up Estimating** - how to use Activity-Based Costing (ABC) to develop a project estimate, working upward from the project's work activities



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- **Risk Mitigation** - how to incorporate project risk into a cost estimate through the use of contingency funds
  - **Life-cycle Costing** - considerations for estimating the costs of long-term and multi-year projects
  - **Resource Leveling** - allocating resources so as to minimize downtime and reduce overall project costs
  - **Time-Phased Budgeting** - how to prepare a project cost baseline that will be used to measure and monitor cost performance during project execution
  - **Estimate Evaluation** - key questions to ask and things to look for to evaluate the quality of a cost estimate.