

Date: 09/09/2025

Lab Practical #12:

Develop a realistic budget for an IT project based on cost estimates.

Practical Assignment #12:

Review the cost estimates gathered from previous exercises. Allocate costs to different budget categories (e.g., personnel, equipment, software). Discuss strategies for contingency planning and managing budget variances. Use the budget template to create a comprehensive project budget. Use Google Sheets.

Description:

Cost Allocation and Budget Categorization

In this exercise, we'll allocate the estimated costs from the previous mobile app development case study into different budget categories and plan for contingencies and budget variances. Let's use data to illustrate the breakdown for an IT project.

Step 1: Cost Categories & Estimates:

Category	Estimated Cost (INR)	Notes
Personnel	₹99,60,000	5 team members (2 developers, 1 UI/UX designer, 1 QA engineer, 1 project manager) for 6–8 months
Equipment	₹6,64,000	Laptops, testing devices, barcode scanners for courier integration
Software & Tools	₹9,96,000	Development IDEs, project management tools, database license (if commercial), API costs (Google Maps, SMS gateway)
Infrastructure	₹12,45,000	Cloud hosting (AWS/Azure), databases, load balancers, storage for 1 year
Travel	₹3,32,000	Client/partner meetings, site visits to courier branches
Miscellaneous/Other	₹4,98,000	Legal, compliance, documentation, training, unforeseen expenses
Total (Before Contingency)	₹1,36,95,000	

Step 2: Contingency Planning:

- Assume 10% contingency (medium risk project).
- Contingency = $10\% \times ₹1,36,95,000 = ₹13,69,500$

Total Project Budget = ₹1,50,64,500

Step 3: Managing Budget Variances:

- Regular Monitoring – Track actual vs. estimated cost in Google Sheets; prepare variance reports.
- Change Control – Scope changes (like live tracking or courier route optimization) must go through approval.
- Risk Management – APIs (GPS, SMS, payment gateway) are high risk → keep buffer.

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Semester 3rd | Practical Assignment | Project Management Tools (2305CS322)

Date: 09/09/2025

4. Resource Optimization – Prefer open-source tools; use contract/part-time testers if needed.
5. Vendor Negotiation – Negotiate discounts for cloud hosting and SMS bulk usage.

Step 4: Final Budget Template:

Budget Category	Estimated Cost (INR)	Actual Cost	Variance	Notes
Personnel (Labor)	₹99,60,000	TBD	TBD	Salaries (dev, PM, QA, designer)
Equipment	₹6,64,000	TBD	TBD	Laptops, testing, scanners
Software & Tools	₹9,96,000	TBD	TBD	IDE, APIs, licenses
Infrastructure	₹12,45,000	TBD	TBD	Cloud hosting & DB
Travel	₹3,32,000	TBD	TBD	Meetings & branch visits
Miscellaneous	₹4,98,000	TBD	TBD	Legal, training, unforeseen
Total Estimate	₹1,36,95,000	TBD	TBD	-
Contingency (10%)	₹13,69,500	N/A	N/A	Risk buffer
Total Project Budget	₹1,50,64,500	TBD	TBD	-