**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% × ₹1,36,95,000 = ₹13,69,500

Total Project Budget = ₹1,50,64,500

**Step 3: Managing Budget Variances:**

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