📃 Cost of Poor Quality (COPQ) Analysis Worksheet Template

📘 Purpose of this Worksheet

The aim of this worksheet is to help you:

- Identify how poor software and system quality translates into measurable costs.
- Classify these costs under the four COPQ categories (Prevention, Appraisal, Internal Failure, External Failure).
- Reflect on how investing in quality early reduces total project and operational costs.
- Strengthen your ability to make a **business case for quality improvement**.

🧩 Section 1 – Scenario Description

Instructions:
Think of a real or hypothetical example of a software or system failure that led to negative business, technical, or user outcomes.

Description of the System/Project	**Example: Banking mobile app, hospital record system, ERP deployment**
Brief Description of Failure/Issue	e.g., Frequent crashes after update, resulting in failed transactions
When Was It Detected?	During development / Testing / After release
Who Was Affected?	(e.g., customers, employees, vendors, public)
Business Impact Summary	(e.g., loss of revenue, customer complaints, downtime, legal risk)

💰 Section 2 – Categorizing the Cost of Poor Quality

Use the table below to classify all identifiable costs under the **four COPQ categories**. Add as many rows as needed.

Category	Examples of Costs	Specific Case Example (from your scenario)	Estimated Cost/Impact
Prevention Costs	Investments to avoid defects (training, process improvement, code review tools, QA planning)		
Appraisal Costs	Costs of inspection, testing, reviews before release		
Internal Failure Costs	Costs from defects found before release (rework, debugging, wasted hours)		
External Failure Costs	Costs from defects after release (warranty claims, lost customers, reputation damage, penalties)		

📊 Section 3 – Impact Analysis

Instructions: Reflect on how this issue affected different stakeholders and operations.

Stakeholder	Impact Type (Financial, Operational, Reputational, etc.)	Severity (Low/Medium/High)	Comments
Customers			
Internal Users / Employees			
Management / Executives			
Developers / IT Team			

Regulatory Bodies / Industry			

🧠 Section 4 – Root Cause & Preventive Opportunities

Instructions: Identify what could have prevented the issue and how to avoid recurrence.

Root Cause Identified	Preventive Action or Quality Initiative	Estimated Cost to Implement	Expected Savings (Post-Implementation)
e.g., Lack of code review	Introduce peer code review before release	$5,000	$20,000 (reduced rework costs)

📈 Section 5 – Reflection and Lessons Learned

Reflective Questions (Write your response):

1. Which COPQ category represented the **largest cost** in your scenario? Why?
2. What **early-stage actions** could have reduced or eliminated these costs?
3. How would you communicate this COPQ analysis to management to justify quality investments?
4. How can you integrate COPQ tracking into your project or organizational metrics going forward?

📊 Optional: COPQ Summary Chart (For Visual Learners)

Learners can create a simple pie or bar chart (in Excel or Word) to visualize their cost breakdown by category.

Category	Estimated Total Cost ($)	% of Total
Prevention		
Appraisal		
Internal Failure		

External Failure		

🏁 Section 6 – Key Takeaway

Summary Prompt:

In one paragraph, summarize what you learned about the relationship between *prevention* and *failure* costs in software quality management.