

THE UNIVERSITY OF DODOMA  
THE COLLEGE OF INFORMATICS AND VIRTUAL EDUCATION



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING (CSE)

ASSINGMENT TWO

**GROUP NAMES**

NO	NAME	REGISTRATION NUMBER
1.	MWINYIMVUA MOHAMED MASAO	T22-03-13205
2.	FURAHA SIMONI MAKUNI	T22-03-05517
3.	REAGAN GABRIEL MWAKILEMA	T22-03-04428
4.	ZAITUNI MWAMILU CHETO	T22-03-00519
5.	MTES NELSON	T22-03-00224

Project: Building a New House

Budget: 1 Billion

Timeline: 2 Years

#### a) Project Cost Management Plan

##### i) Cost Estimation

**Labor Costs:** Use bottom-up estimation for skilled, semi-skilled, and unskilled labor, based on local market rates.

**Material Costs:** Gather quotations from multiple suppliers for essential materials like concrete, steel, and wood.

**Equipment Costs:** Budget for machinery rentals, maintenance, and fuel.

**Overhead Costs:** Include site utilities, permits, and safety measures.

##### ii) Cost Control

- Establish a baseline budget using a Work Breakdown Structure (WBS).
- Monitor using Earned Value Management (EVM) to track cost performance and variance
- Allocate a contingency reserve for unexpected expenses.

##### iii) Managing Cost Variances

- Identify variances early through periodic cost reports.

- Reallocate funds from low-priority areas if overruns occur.
- Approve changes via a Change Control Board (CCB) to ensure alignment with project goals.

## b). Procurement Management Plan

### i) Selecting Suppliers and Contractors

- Issue Request for Proposals (RFPs) to identify qualified vendors.
- Conduct pre-qualification assessments based on experience, certifications, and financial health.

### ii) Vendor Evaluation Criteria

- Price and value for money.
- Timeliness and reliability.
- Compliance with project specifications and industry standards.

### iii) Procurement Process

- **Planning:** Develop a procurement schedule aligned with project milestones.
- **Contracting:** Negotiate clear terms covering scope, payment, and dispute resolution.

- **Execution:** Monitor vendor performance via regular progress reports.
- **Closure:** Conduct final inspections and process payments post-completion.

### c) Project Quality Management

#### i) Quality Planning

- Define quality benchmarks based on client requirements.
- Create a Quality Management Plan (QMP) outlining acceptable standards.

#### ii) Quality Monitoring and Control

- Use checklists and statistical sampling during site inspections.
- Implement tools like Six Sigma for defect reduction.

#### iii) Handling Quality Failures

- Conduct Root Cause Analysis to determine failure causes.
- Rework and revalidate affected areas without exceeding critical deadlines.

## d) Project Risk Management Plan

### i) Risk Identification and Assessment

- Categorize risks using a Risk Breakdown Structure (RBS) (e.g., financial, technical, environmental).
- Prioritize risks using a Risk Matrix (likelihood vs. impact).

### ii) Risk Mitigation Strategies

- **For cost risks:** Maintain financial buffers.
- **For delays:** Add schedule contingencies.
- **For quality issues:** Use pre-approved suppliers.

### ii) Handling Major Risks

- Develop contingency plans (e.g., hire backup subcontractors).
- Reorganize schedules and redistribute resources to minimize disruption.