# DT BUSINESS ANALYST ASSIGNMENT

## Task1: Clinic Inventory Micro-Audit System

I am acting as a Clinic Business Analyst responsible for maintaining inventory accuracy and billing discipline in a small clinic pharmacy where:

1. Medicines are not barcoded
2. Sales entries are typed manually
3. Errors are small but frequent
4. Doctor time is extremely limited

In this my job is not reconciliation. And to design a System and run daily micro-checks that keep staff alert and inventory clean.

And my role is to defining exactly what you will do every day.

### Step 1: Identify High-Risk Medicines

checking all medicines every day, you focus only on medicines where errors are most likely.

**Importance:**

1. Clinics have limited time
2. Most errors occur repeatedly

**The Criteria:**

1. High daily sales volume
2. Similar or confusing names
3. High value per unit

**Output:**

| Medicine | High Risk |
|---|---|
| Dolo 650 | High volume + name variations |
| Azithromycin 500 | Similar abbreviations used |
| Pantoprazole 40 | High frequency |

**STEP 2: Daily Name-Variation Check**

check how medicine names are typed in the sales register.

Because medicines are Typed manually, not barcoded.

What I do:

1. Filter Sales Register for only High-Risk Medicines
2. Group similar names manually

Example:

| Name Variants | Mapped To |
|---|---|
| Dolo/Dolo 650/Dolo kind | Dolo 650 |
| Azithro 500 / Azithromycin | Azithromycin 500 |

What I flag:

1. New or Unusual name variants
2. Names not used earlier

Why this matters:

- Wrong names break inventory math
- Stock looks correct on paper but is actually wrong

**STEP 3: DAILY USAGE REASONABLENESS CHECK**

check whether medicine usage looks reasonable, not perfect.

**What I do:**

For each high-risk medicine: Expected Closing Stock = Opening + Purchases − Total Sales (after grouping) Compare with **actual closing stock**.

**Calculation:**

Expected Closing Stock = Opening + Purchases – Sales

| Medicine | Expected | Actual | Diff | Action |
|---|---|---|---|---|
| Dolo 650 | 1460 | 1440 | -20 | Review sales entries |

**STEP 4: Random Bill Spot Check**

In this I have to randomly check **3–5 bills every day** involving high-risk medicines.

**Verification:**

1. Medicine name matches master
2. Quantity seems reasonable vs prescription

Error Handling:

1. Errors are Corrected
2. Logged for tracking

**Output:**

- Errors logged in a simple tracker
- No punishment — only correction

**STEP 5: PATTERN TRACKING**

1. Instead of reacting to single mistakes, you look for patterns.
2. And maintaining the simple error log

| Date | Medicine | Error Type | Repeated |
|---|---|---|---|
| Aug 1 | Dolo 650 | Name variant | Yes |
| Aug 3 | Dolo 650 | Wrong quantity | No |

**Weekly decisions:**

1. Same error >= 3 times →staff retraining
2. Error across medicines → SOP improvement

**STEP 6: DOCTOR ESCALATION RULES**

Doctor should be involved only when absolutely necessary.

Doctor is involved only if:

1. Financial impact is material
2. Same error repeats despite correction

**Why this step is critical**

1. Doctor time is the most expensive resource
2. Doctor should not be disturbed for routine issues