🧭 SIMPLE SYSTEM-DOABLE APPROACHES
📈 1. Predict Sales Targets (Simple Calculation-Based Forecast)

You can generate sales target predictions using simple arithmetic, all computed in your backend and displayed on a chart or dashboard.

✅ Concept:

Predict the next month's sales using average or growth rate based on recent data.

🔹 Methods You Can Implement:
a. Average of Last 3 Months
Predicted Sales = (Month1 + Month2 + Month3) / 3

Example:

July = ₱50,000

Aug = ₱55,000

Sept = ₱60,000

Predicted October = (50000 + 55000 + 60000) / 3 = ₱56,667

b. Percentage Growth
Growth Rate = ((CurrentMonth - LastMonth) / LastMonth) × 100
Predicted Next = CurrentMonth × (1 + GrowthRate/100)

Example:

August = ₱55,000

September = ₱60,000

Growth Rate = (60,000 - 55,000) / 55,000 × 100 = 9.09%

Predicted October = 60,000 × (1 + 0.0909) = ₱65,454

🔹 System Display Ideas:

Show a "Predicted Sales" box on the dashboard.

Add a chart comparing “Last 3 Months” vs “Predicted.”

Use a color indicator (green ↑ if growth, red ↓ if decline).

📊 2. Analyze Sales Trends (Simple Chart-Based Analysis)

Instead of advanced analytics, you can analyze trends with comparisons and basic statistics from your sales database.

✅ Concept:

Use basic SQL queries to compare months, products, or categories, and visualize them.

🔹 Methods You Can Implement:

a. Month-to-Month Comparison

```
SELECT MONTH(date) AS month, SUM(total_sales) AS total
FROM sales
GROUP BY MONTH(date);
```

Display each month’s total in a bar or line chart.

b. Growth or Decline Percentage

```
Change = CurrentMonth - PreviousMonth
PercentChange = (Change / PreviousMonth) × 100
```

Display message:
“Sales increased by +12.3% from last month.”

c. Category or Product Trends

```
SELECT category, SUM(total_sales) AS total
FROM sales
GROUP BY category;
```

Display top-selling categories or products using charts or leaderboards.

🔹 System Display Ideas:

Line chart: Monthly totals (Chart.js / ApexCharts)

Pie chart: Sales by product category

Badge or label: “Top Product: Product A (₱25,000 Sales)”

💾 3. Backup and Restore Data (Manual Export/Import)

Keep it simple: let admins export data as .CSV files and import it back when needed.

✅ Concept:

Use manual backup/restore buttons — fast, safe, and easy to test.

🔹 Methods You Can Implement:
a. Export Data (Backup)

When “Export” is clicked:

```
SELECT * FROM sales
INTO OUTFILE 'sales_backup.csv'
FIELDS TERMINATED BY ','
ENCLOSED BY '"'
LINES TERMINATED BY '\n';
```

Or programmatically (in Java/PHP/Python):

Read records from the database.

Write them to a .csv file.

Allow the user to download it.

b. Import Data (Restore)

When “Import” is clicked:

User uploads a .csv file.

System parses each line.

Inserts records into the sales table:

```
LOAD DATA INFILE 'sales_backup.csv'
INTO TABLE sales
FIELDS TERMINATED BY ','
ENCLOSED BY '"'
```

LINES TERMINATED BY '\n';

🔹 System Display Ideas:

Backup Page:

Button: “Export Sales Data”

Button: “Import Backup File”

Backup History Log:

✅ All these methods:

Require only basic SQL and arithmetic

Work perfectly in Java/PHP web apps

Can be done within 1–2 sprints

Are displayable on your dashboard using charts, tables, or text indicators