Order Status Tracker – OST

Minor Project

IBM Career Education

Disclaimer

This Software Requirements Specification document is a guideline. The document details all the high level requirements. The document also describes the broad scope of the project. While developing the solution if the developer has a valid point to add more details being within the scope specified then it can be accommodated after consultation with IBM designated Mentor.

INTRODUCTION

The purpose of this document is to define scope and requirements of a Order Status Tracking system (OST) to track stationery items to distributors in various regions of the country. The Managers were keen in tracking their teams' order delivery status using a simple and effective reporting tool. The in-house IT team helped the Managers come up with the specifications of a reporting tool, using live order data received from the distributors in ERP to deliver:

1. A handy tool to quickly view Employee/Product wise sales during a month.
2. Cross tab with various parameters with a feature to sort the columns.

This document is the primary input to the development team to architect a solution for this project.

System Users

The Sales Managers shall use the tool to monitor orders status in a month.

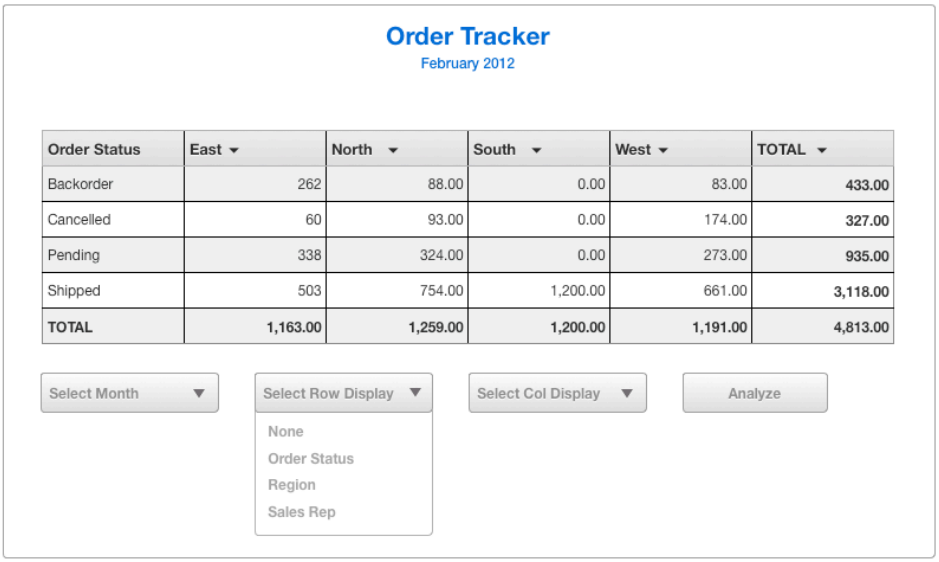
Assumptions

1. Typically the Order tracking reports are generated on weekly basis as a backend activity and made available to the users for viewing it. Various BI tools are deployed for detailed analytics or there is a huge dependency on Spreadsheet software. In our case, a simple and handy tool that is accessible over intranet for the managers as and when required.
2. The data for masters like Products and transactions like Order data from ERP shall be uploaded as CSV from backend.
3. The data for orders is uploaded only for the current year.
4. For simplification of data handling, there is only one distributor per region. East, West, North and South can be treated as 4 distributors.

REQUIREMENTS

On accessing the Order tracker tool, the system will display a default Order status report for the current month in a crosstab format as illustrated on the next page.

The default view shows an Order Status as rows and their respective order value in a region wise breakup. The last row displays the total region wise order value of all products and last column displays total orders for a product for the month till date.



The report view can be changed by the selections available at the bottom of the report:

1. Select Month - a drop down of Jan to current month.
2. Select Row Display - a drop down (None, Product, Region, Order Status)
3. Select Column - a drop down of (None, Product, Region, Order Status). Please note that the option selected in the row drop down will not be shown in the column drop down and vice-versa with an exception to 'None'.

Analyze button will refresh the page and display the report based on the selections made by the user.

About Crosstab

Cross Tabulation is an effective mechanism to summarize the data available as multiple variables in a 2-dimension table. Such a report is available with a combination of two attributes that are being summarized to produce a resulting matrix. Let's see how the Cross Tabulation works to produce the Report layout shared in the earlier section. It starts from the raw data that will be stored in the following format from the uploaded CSV file:

Date	EmpCode(SE)	EmpCode (SM)	Region	Status	ProdCode	Cost	Units	Total
01-Feb-2012	Jones	Michelle	East	Shipped	P0010	2.99	95	284.05
01-Feb-2012	Kivell	Carol	West	Shipped	BDR01	4.99	50	249.5
01-Feb-2012	Jardine	Roger	North	Shipped	P0010	2.99	36	107.64
06-Feb-2012	Kivell	Carol	West	Shipped	BDR01	4.99	27	134.73
06-Feb-2012	Sorvino	Carol	West	Shipped	P0010	2.99	56	167.44
06-Feb-2012	Jones	Michelle	East	Shipped	BDR01	4.99	60	299.4
11-Feb-2012	Andrews	Carol	West	Shipped	P0010	2.99	75	224.25
11-Feb-2012	Jardine	Roger	North	Shipped	P0010	2.99	90	269.1
11-Feb-2012	Thompson	Carol	West	Canceled	P0010	2.99	32	95.68
16-Feb-2012	Morgan	Roger	North	Shipped	P0012	1.99	74	147.26
16-Feb-2012	Jones	Michelle	East	Canceled	BDR01	4.99	60	299.4
16-Feb-2012	Andrews	Carol	West	Shipped	DSK02	275	2	550
21-Feb-20012	Morgan	Roger	North	Pending	P0010	2.99	90	269.1
21-Feb-2012	Parent	Michelle	East	Pending	DSK02	275	1	275
21-Feb-2012	Howard	Michelle	East	Pending	BDR01	4.99	29	144.71
26-Feb-2012	Andrews	Carol	West	Backorder	BDR01	4.99	81	404.19
26-Feb-2012	Morgan	Roger	North	Canceled	P0010	2.99	25	74.75
26-Feb-2012	Jones	Michelle	East	Backorder	P0010	2.99	35	104.65

The above sample data is for includes the Sales Manager and the Sales Executives in each row; therefore the team members for a sales manager are automatically known from this data. The employee names and the product description are obtained from the respective masters viz. “employee master table” and “product master table”. This data is uploaded from the back-end.

The row header displays list of regions and the column header displays the shipment status. At the intersection of a region’s row and a status’ column, the cell contains the sum of all order values in that region for that status.

The row and column variables can be changed to obtain a different view. The crosstab will also let you change the sort order (inverted triangle icon) in an ascending or descending manner. Note, only one column can be sorted a time.

By selecting a combination of rows and column variables, the sales manager will be able to analyze the data in 12 different ways.

Data Upload

Order transactions will be uploaded via CSV file having the format described in the section on About Crosstab.

The product master table will contain the product code and the product description. Similarly, the employee master table will contain the employee code and the employee name. Note, the manager and his team information are embedded in the order transactions.

The master data may be created in the DB2 backend directly as a one-time effort.

DEVELOPMENT ENVIRONMENT

OST will be developed as a web application using Java/JSP and DB2 database. Eclipse will be used as the IDE for the same. You may consider using a JavaScript framework like jQuery/Prototype/ Scriptaculous.