EasyChair Preprint

№ 3381

Static Industrial Perspective Sales Analysis

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May 11, 2020

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Abstract We use SPEL company data for sales analysis, finding trend of sales. In this scenario we use Static Analysis we using SQL for query written and python use the end result of different angle. In one year sales trend in unit wise, employee wise and month wise using different technique graphs and tabular form to find pattern weak points and trend in sales for this analysis.

Keywords SQL queries, Static analysis techniques, business logic, python

Introduction

In industry area enormous things are manufacture in one domain, like synthetic products are different manufacture in one industries .In an company there are different type of plants which also called units, in different [1] plants have own sale and product , which deal one or two person , one is plant engineer or other is marketing employee .

Mostly in industries level company have many plants, and have many product they sales with the coordination of marketing employee and plant engineer, and every plants have own sale and product, if we search in deep level then we find every plant have own customer. In given data set have 20 attributes which have one functionality and valuable information and 6153 values. Main attributes monthly sales, targeted sales, [2] employee sales, daily base sales unit describe unite wise sale, daily target sales .In industries level base on banking year. Banking fallow fiscal year which start 1 July and in 30 june. So we use fiscal year base analysis.

Literature Survey

CEO, Directors, Partners and Share Holder person in every company want to view of sales trend. With the help of those trend they make new targets for employee which include production employee and sales employee. [3] Main concern person marketing and sales person which give the instruction of production engineer to produce product for given

target, which is directly attached with sale. This all scenario direct attach with sales.

Every company owner want to views sales on one click, and want to generate target in one click. Because every owner have less time, and they want to prediction according with sales. Now days every owner of company want to predict, analysis in sales for company and make new strategy for increase sales. So that case with the help of data science we find those factor which is directly and indirectly hit over performance, sales, strategy, and view all that things is very user friendly also predict for future sales and strategy [4].

Data mining will help analyze our whole system database which help to generate new link, patterns in these pattern we find parameter which is effected by our sale. Through Data mining abstraction of large data set to find unit wise sale in given data set.

Static analysis

This data set is use by SPEL (Synthetic Product Enterprises Limited) company.in this data set main attribute is “Target_Day” , basically target day is daily bases target ,next is “Actual_Day” which is daily sale value do, next “Target_Month” is monthly base target .

We use SQL queries for finding data set and clean data through SQL queries and also SQL queries help for static analysis.[4]For static analysis techniques making those type of queries, Like we pass one date and find “StartDay_Week ” , “EndDay_Week” , ”WeekNo” , “Month”, “ Year”, “StartDate_Year”, “EndDate_Year”, “StartDay_Month”, “EndDay_Month”. So in those sql queries using static analysis to finding data set of sales and target.

Using Python for graphs, tables form data using static analysis techniques [5]. We use percentage means, group of individual UNIT and sum for total sales of each UNIT[5]

UNIT Wise Sales Analysis

This result of given data set which base on fiscal year which start 1 July 2018 and end 30 june 2019.

	UNIT	Target_Day	Actual_Day	Target_Month	% acheived
0	UNIT1	651805797	490913542	528297076	75
1	UNIT2	687164692	590755966	546970105	86
2	UNIT3	1477823403	1486371687	1127901091	101
3	UNIT4	96888000	0	0	0
4	UNIT5RYK	610477060	502568374	509016140	82

Figure 1

This tabular form result show in unit wise , in UNIT5RYK means those unit which is located in RehamYarKhan. This analysis is one

year sales targets, now day of sales, monthly sales target and achieved show in percentage . UNIT3 is maximum sale in 2018-2019 duration this is 101% and minimum sale is 0% which is UNIT4.

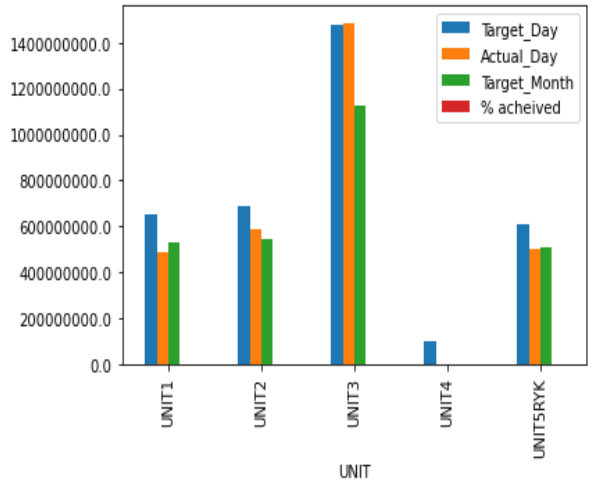

Figure 2

This analysis show is graph form which explain target day is blue line that is maximum in UNIT3 it means maximum target provide by UNIT3 which sale also have maximum which donated by orange color. Same like that minimum sale target is UNIT4 and his sales also 0 [6].

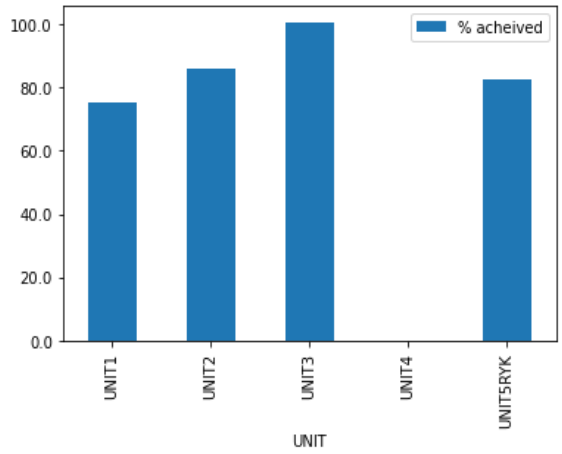

Figure 3

Bar chart is describe the percentage of each UNIT of one fiscal year (2018-2019).This chart summaries and easy way to understand if they view in percentage form.

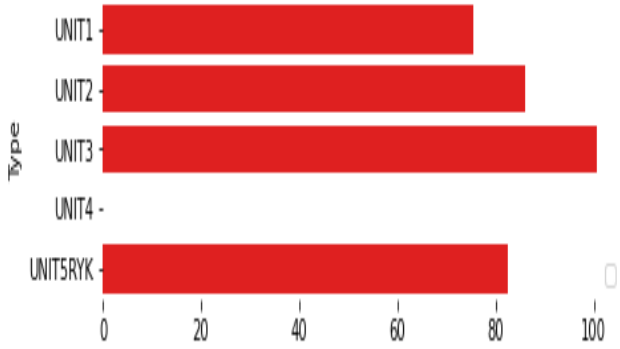

Figure 4

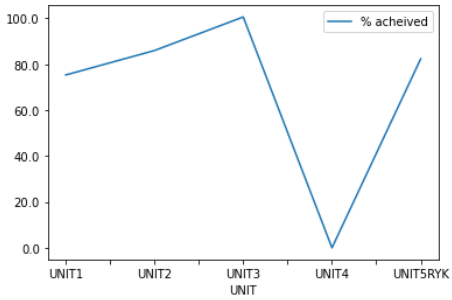

Figure 5

UNIT1 is 75 % UNIT2 is 86% UNIT3 is 101% UNIT4 is 0% and the Last UNIT is UNIT5RYK which is 82%.

Employee Wise Sales Analysis

In Given SPEL company data set have 10 employee, combine 2 employee consider 1 employee the reason behind is one of marketing employee and second is plant engineer. Plant engineer handle production and marketing employee responsibility to take order of customer.

	Name	Target_Day	Actual_Day	Target_Month	% acheived
0	Mobeen/Ashraf	28840164	26905299	24963237	93
1	Mobeen/Faseeh	651805797	490913542	528297076	75
2	Umair/Ashraf	5735295	3716066	3970588	65
3	Umair/Noman	570841893	484877338	457674965	85
4	Yasir/Ashraf	246130956	201197369	200878569	82
5	Yasir/Talal	202168512	-229496	175455346	0
6	Yasir/Wasim	408308548	502797870	333560794	123
7	Zafar/Amir	96888000	0	0	0
8	Zafar/Ashraf	1197116989	1254552952	898088697	105
9	Zafar/Noman	116322799	105878628	89295140	91

Figure 6

Every employee have own sales and target.

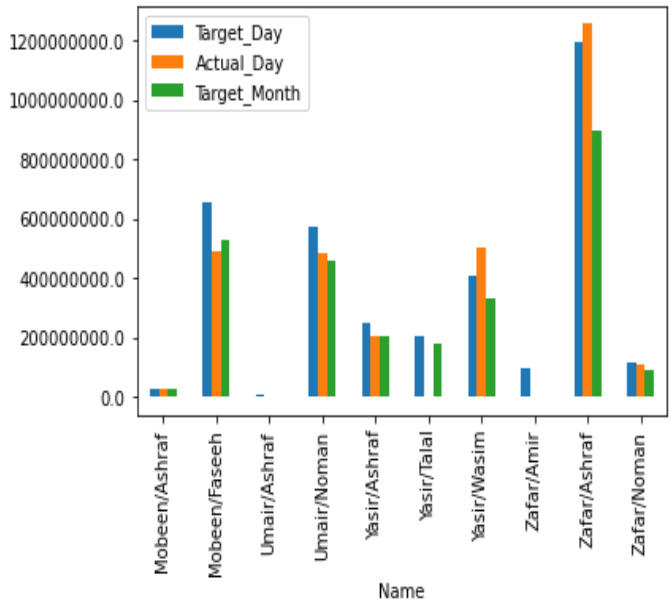

Figure 7

This shown as graph form to describe target which is donated is blue color, Actual sales is denoted by orange

color and target of month is green color.

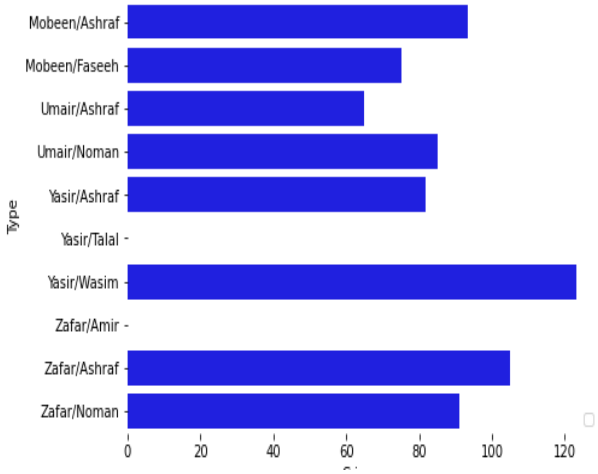

Figure 8

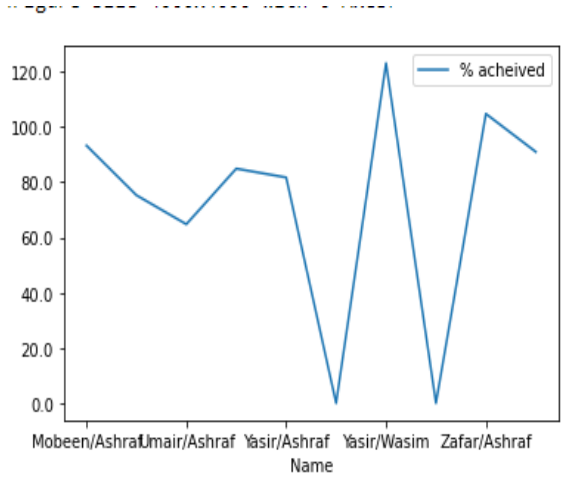

Figure 9

This percentage of sales have each employee which describe the employee wise sale in one fiscal year (2018-2019).

Monthly wise Sales Analysis

With the help of static analysis in SQL and extract sales for the month of fiscal year from 1 July 2018 to 30 june 2019 and also view in python

	Month	Target_Day	Actual_Day	Target_Month
0	January	262893670	220491988	258442724
1	February	252356816	203488459	247905873
2	March	292081352	250173827	285965674
3	April	408118942	360553101	322489706
4	May	294886639	307667406	0
5	June	331014001	271278729	316014034
6	July	339218377	302801036	0
7	August	319956893	260411981	294850522
8	September	287653741	267556637	286147441
9	October	294828273	263433718	282187171
10	November	247062980	197281035	165691805
11	December	194087269	165471653	252489462

Figure 10

Monthly target does not match with daily target reason behind is all monthly target set start of fiscal year. But today target revise every month or week depend upon current situation of market. Suppose April, May, june, July, September are peek sales of month, so in these days and weak sales target are revise depend on current situation of market . Sumer season of these month sales is high, it means a specific pattern build in the data set which analysis through static analysis.

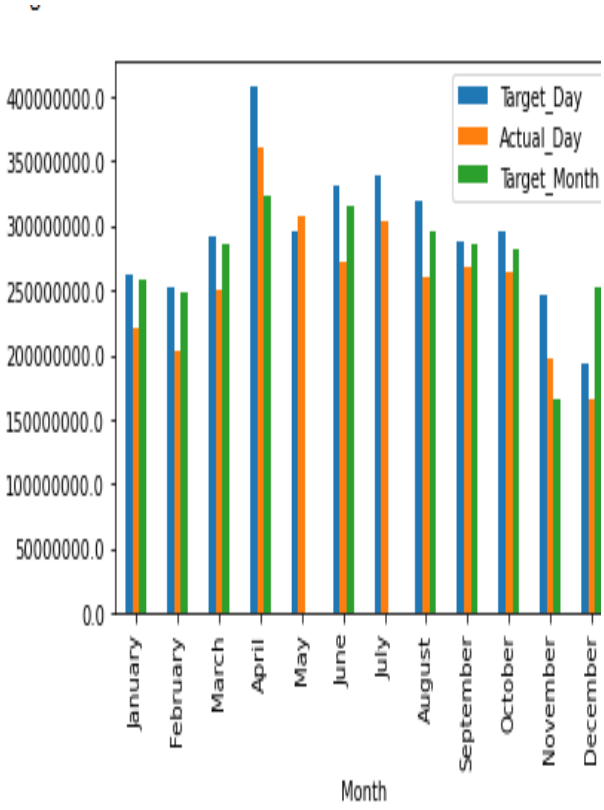

Figure 11

Conclusion

The conventional method of assessment is based on professional judgment as well as testing (and static analysis). Subjective judgment cannot be avoided, but more use could be made of objective testing, preferably by accredited testing laboratories.

Reference

[1] Embarcadero Technologies, Available at: www.embarcadero.com (accessed 28/10/2016).

[2] B A Wichmann, AA. Canning, D.L. Clutterbuck, L A Winsborrow, N.J. Ward and D.W.R. Marsh (1995) "Industrial perspective on static Analysis" Consultancy Services Ltd, Farnham, GU9 7TB. UK.

[3] CARNOT, M, DA SILVA C.. DEHBONEI. B., and Mwlq F(1992) "Error-free software development for critical systems using the B-methodology". Third IEEE Int Conf. on Software Reliability,

[4] Minewiskan (2018) "Data Mining Queries (Analysis Services) | Microsoft Docs" kfile, Microsoft Docs

[5] Hyung-il Ahn (2014) "Sales Prediction with Social Media Analysis" IBM Research - Almaden San Jose, USA

[6] WICHMA(June 1994)", BA: 'Strategy on the use of SPARK'. NPL