ASSIGNMENT

ON

FINAL

ASSESSEMENT

SUBMITTED BY

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COURSE: DATA SCIENCE IN EXCEL

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Contents

Q1 What are chart and different types of chart?

Ans => A chart is different from a graph. It can be represented in many form and is not limited to two-dimensional axes.

The different types of chart are as follow:

* Line Chart
* Bar Chart
* Pie chart
* Histogram

* Line Chart: The line chart, or line graph, connect several distinct data point, presenting them as one continuous evolution. Use line chart to view trend in data, usually over time (like stock price change over five years or website page view for the month). The result is a simple, straightforward way to visualize changes in one value relative to another.

* Bar Chart: Bar Chart are used in economics, statistics and marketing to analyse big data. The X-axis represents the category, while the Y-axis represents value. The length of bar gives the idea of maximum and minimum value with respect to the category.

* Pie Chart: A pie chart is circular in shape with slices of different sizes. It is mostly used in marketing. It consists of the value of each variable as a slice of the circle, and various colours are use to separate the categories. From the area of a slice, the minimum and maximum values are recognised. Pie Chart are more effective when used in 3D form.

* Histogram: Histogram are used in statistics, business and economics where numerical data plays a crucial role. A typical histogram looks like a bar chart. However, a bar chart provides comparisons of fixed value of a category, while in a histogram each bar represent a range of value such as age in the range of 25-40. Histogram are generally used to summarise big data.

Q2 What is Pivot Tables in Excel and their implementation?

Ans => A Pivot Tables is a tables of grouped values that aggregates the individual items of a more extensive table (such as from a database, spreadsheet, or business intelligence program) within one or more discrete categories. This summary might include sums, averages, or other statistics, which the pivot tables group together using a chosen aggregation function applied to the grouped values.

Implementation:

Pivot Table Fields are the building block of pivot tables. Each of the fields from the list ~~card~~ can be dragged on to this layout, which has four options:

1. Filters
2. Columns
3. Rows
4. Values

Some uses of pivot tables are related to the analysis of questionnaries with optional responses but some implementation of pivot tables do not allow these use cases.

Filters:

Report Filters is used to apply a filter to an entire table. For example, if the "Color of item" field is dragged to this area, then the table constructed will have a report filter inserted above the table. This report filter will have drop-down option (Black, Red, and White in the example above). When an option is chosen from this drop-down list ("Black" in this example), then the table that would be visible will contain only the data from those rows that have the "Color of Item = Black".

Columns: Column labels are used to apply a filter to one or more column that have to be shown in the pivot table. For instance if the "Salesperson" field is dragged to this area, then the table constructed will have value from the column "Sales Person", i.e, one will have a number of column equal to the number of "Salesperson". There will also be one added column of Total. In the example above, this instruction will create five columns in the table - one for each salesperson, and Grand Total. There will be a filter above the data - column labels from which one can select or deselect a particular salesperson of the pivot table.

Rows: Rows labels are used to apply a filter to one or more rows that have to be shown in the pivot table. For instance, if the "Salesperson" field is dragged on this area then the other output table constructed will have values from the column "Salesperson", i.e, one will have a number of "Sales Person". There will also be one added, row of "Grand Total". In the example above, this instruction will create five rows in the table - one for each ~~seat sold~~ Salesperson, and Grand Total. There will be a filter above the data - row labels - from which one can select or deselect a particular salesperson for the pivot table.

Values: This usually takes a field that has numerical values that can be used for different types of calculations. However, using; instead of Sum, it will give a count. So, in the example above, if the "Units sold" field is dragged to this area along with the rows label of "Salesperson", then the instruction will add a new column, "Sum of unit sold", which will have values against each salesperson.

Q3 What is Conditional Formatting? Distinguish 5 types of Conditional Formatting -

Ans => Conditional Formatting makes it easy to highlight certain values or make particular cell easy to identify. This change the appearance of a cell range based on a condition (or criteria). You can use condition formatting to highlight cell that contain values which meet a certain condition.

There are 5 types of conditional formatting they are:

- Background color Shading (of cells)
- Foreground Color Shading (of fonts)
- Data Bars
- Icons (which have 4 different image types)
- Values

Q4 How to clear Formatting in Excel without actually removing the cell content?

Ans => 6 way to clear Formatting in Excel are as follow.

1. Remove Formatting from Selected cell:

* First, select the cell from where you want to remove formatting.

* Then, go to Home > Editing > Clear and select Clear Formats.

2. Keyboard Shortcut to Remove Formatting:

The easiest way to remove formatting from selected cell is using a keyboard shortcut.

* First, select the formatted cells.

* Then, Press ALT+H+E+F.

3. Remove Formatting from Entire Dataset:

You can also remove formatting from the entire worksheet without removing any content.

* First, select all the cell by clicking on the arrow sign from the intersect point of the row and column number.

* After that, go to Home > Editing > Clear and select Clear Formats.

After that, you can see the Format box in the Find and Replace window

* Click on Format box.

6. Remove Conditional Formatting without Removing contents:

To remove Conditional Formatting from your dataset without removing contents.

* First, select your entire dataset.

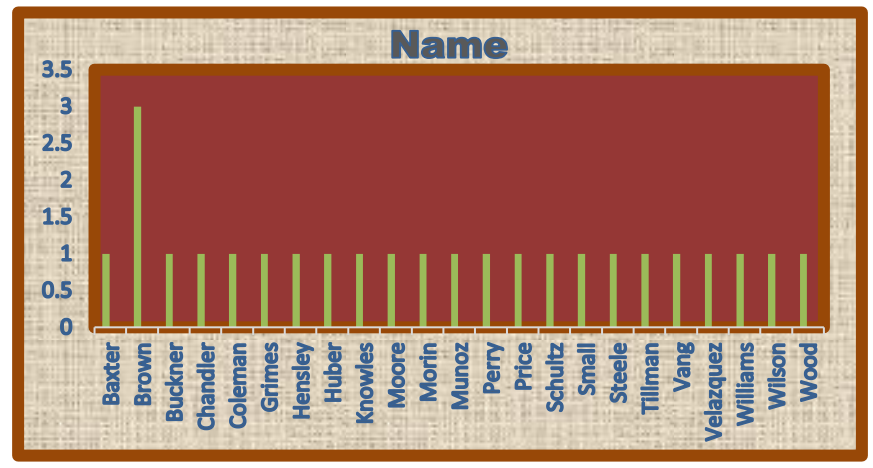
* Then, Go to Home > Conditional Formatting > Clear Rules and select Clear Rules from Selected Cells.

5)Create a Pivot Table and Chart for the Given Table?

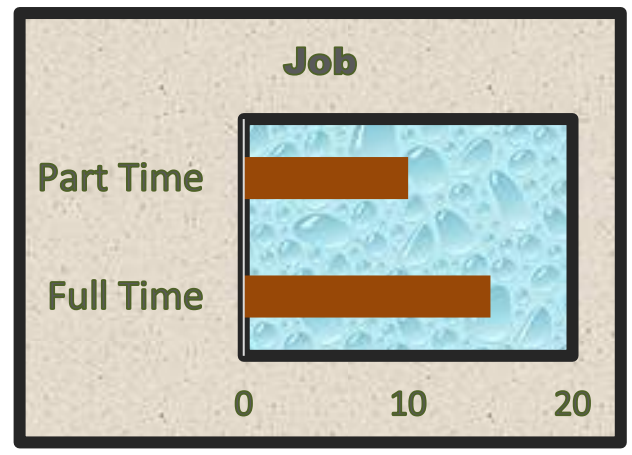
Employee Details

Last Name	First Name	Status	Salary
Williams	Mary	Full Time	$ 35,000
Brown	Robert	Full Time	$ 32,000
Wilson	Elizabeth	Part Time	$ 12,000
Moore	Jennifer	Full Time	$ 41,000
Brown	Charles	Full Time	$ 39,000
Price	Lisa	Part Time	$ 14,000
Wood	Daniel	Part Time	$ 13,750
Coleman	Donald	Full Time	$ 37,500
Perry	George	Part Time	$ 12,050
Steele	Donna	Full Time	$ 36,750
Schultz	Carol	Full Time	$ 38,050
Munoz	Ruth	Part Time	$ 11,000
Chandler	Jason	Full Time	$ 29,000
Small	Matthew	Full Time	$ 45,500
Hensley	Jessica	Full Time	$ 52,000
Brown	Gary	Part Time	$ 8,000
Grimes	Jose	Part Time	$ 17,000
Baxter	Brenda	Full Time	$ 36,000
Morin	Frank	Full Time	$ 36,500
Tillman	Kathleen	Part Time	$ 9,750
Huber	Joshua	Full Time	$ 31,750
Boyle	Debra	Full Time	$ 38,050
Buckner	Jerry	Full Time	$ 37,500
Knowles	Aaron	Part Time	$ 10,050
Velazquez	Carlos	Part Time	$ 9,075
Vang	Marilyn	Full Time	$ 29,750

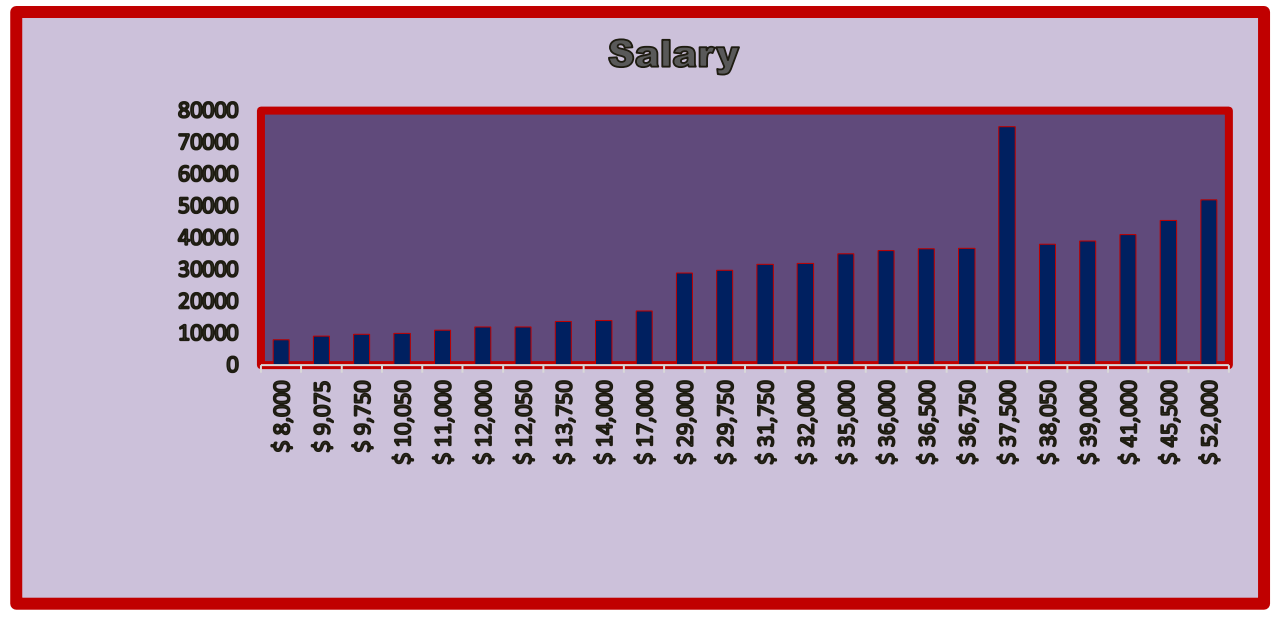
Row Labels	Count of Name	Sum of Name2
Baxter	1	0
Brown	3	0
Buckner	1	0
Chandler	1	0
Coleman	1	0
Grimes	1	0
Hensley	1	0
Huber	1	0
Knowles	1	0
Moore	1	0
Morin	1	0
Munoz	1	0
Perry	1	0
Price	1	0
Schultz	1	0
Small	1	0
Steele	1	0
Tillman	1	0
Vang	1	0
Velazquez	1	0
Williams	1	0
Wilson	1	0
Wood	1	0
Grand Total	**25**	**0**



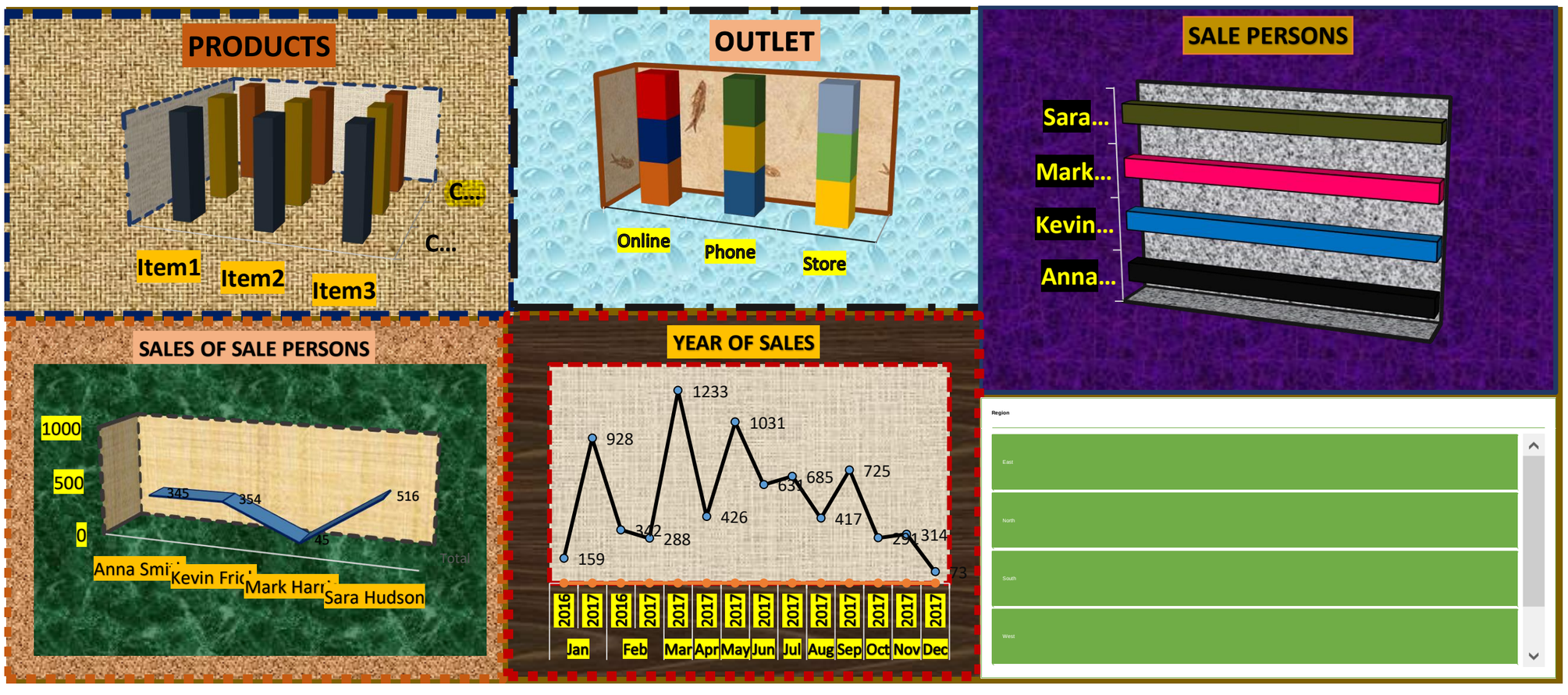
Row Labels	Count of Job
Full Time	15
Part Time	10
Grand Total	**25**



Row Labels	Sum of salary
$ 8,000	8000
$ 9,075	9075
$ 9,750	9750
$ 10,050	10050
$ 11,000	11000
$ 12,000	12000
$ 12,050	12050
$ 13,750	13750
$ 14,000	14000
$ 17,000	17000
$ 29,000	29000
$ 29,750	29750
$ 31,750	31750
$ 32,000	32000
$ 35,000	35000
$ 36,000	36000
$ 36,500	36500
$ 36,750	36750
$ 37,500	75000
$ 38,050	38050
$ 39,000	39000
$ 41,000	41000
$ 45,500	45500
$ 52,000	52000
Grand Total	**673975**



Q6. Create a Dashboard for the attached Excel Sheet.



Q7 Define Statistics?

Ans => Statistics is a branch of Mathematics which deals with collection organisation analysis and interpretation of data. Statistics deals mainly in the communication and analysis of facts and figures using statistical methods. Collection classification tabulation representation reasoning testing and drawing inferences are parts of the statistical method.

Q8 Explain about any two Data Analysis Tool Pak?

Ans => The two Data Analysis are Text Analysis and Inferential Analysis.

* Text Analysis: Text Analysis is also referred to as Data Mining. It is one of the methods of data analysis to discover a pattern in large data mining tools. It used to transform raw data into business information. Business Intelligence ~~tool~~ tools are present in the market which is used to ~~ta~~ take strategic business decisions. Overall it offers a way to extract and examine data and deriving pattern and finally interpretation of the data.

* Inferential Analysis: Analysis sample from complete data. In this types of Analysis, you can find different conclusions from the same data by selecting different samples.

Q9 Explain about Histogram?

Ans => A histogram is a display of statistical information that use rectangles to show the frequency of data items in successive numerical intervals of equal size. In the most common form of histogram, the independent variable is plotted along the horizontal axis and the dependent variable is plotted along the vertical axis. The data appears as colored or shaded rectangles of variable area.