EXCEL ASSIGNMENT-1

1.WHAT IS EXCELL?WHAY DO WE USE EXCELL?

ANS.

EXCEL:

Excel is a spreadsheet program from Microsoft and a component of its Office product group for business applications. Microsoft Excel enables users to format, organize and calculate data in a spreadsheet.

By organizing data using software like Excel, data analysts and other users can make information easier to view as data is added or changed. Excel contains a large number of boxes called cells that are ordered in rows and columns. Data is placed in these cells.

Excel is a part of the Microsoft Office and Office 365 suites and is compatible with other applications in the Office suite. The spreadsheet software is available for Windows, macOS, Android and iOS platforms.

USES OF EXCEL:

Excel is most commonly used in business settings. For example, it is used in business analysis, human resource management, operations management and performance reporting. Excel uses a large collection of cells formatted to organize and manipulate data and solve mathematical functions. Users can arrange data in the spreadsheet using graphing tools, pivot tables and formulas. The spreadsheet application also has a macro programming language called Visual Basic for Applications.

Organizations use Microsoft Excel for the following:

- collection and verification of business data;

- business analysis;
- data entry and storage;
- data analysis;
- performance reporting;
- strategic analysis;
- accounting and budgeting;
- administrative and managerial management;
- account management;
- project management; and
- office administration.

2.List all the versions of the Microsoft excel? Compare excel software provided from multiple vendors?

Ans:

List of all versions of the Microsoft excel:

Excel 365
Excel 2021
Excel 2019
Excel 2016 and 365
Excel 2013 (Windows)
Excel 2011 (Mac)
Excel 2010 (Windows)
Excel 2008 (Mac)
Excel 2007 (Windows)
Excel 2004 (Mac)
Excel 2003 (Windows)
Older Windows versions (2002, 2000, 97, 95, 4.0, 3.0, 2.0)
Older Mac versions (2001, 2000, 98, 5, 4, 3, 2, 1)
OS/2 Versions (2.2, 2.3, 3)

ionI have product/price lists from two, sometimes three vendors. Below is an example of the format I would get the data (left description blank for simplicity, the code and price are the important pieces):

Vendor 1		**Vendor 2**				
CODE	Description	PRICE		CODE	Description	PRICE
5599		$ 22.00		5005		$ 15.00
5005		$ 15.00		5035		$ 23.00
5035		$ 25.00		5055		$ 25.00
5055		$ 20.00		5905		$ 20.00

Basically I need to know what the formulas are that would compare the two lists and then spit out which vendor has the lowest price for each product. I can't simply sort by product code from smallest to largest as the vendors carry different products so the lists wouldn't match up line for line. The product code for vendor 1, say Jiffy 1qt creamy peanut butter will be the same product code for vendor 2. Below is the format I am hoping to have the formulas yield:

Best Price		**Equal Price**		**No Duplicate**				
CODE	VENDOR	PRICE		CODE	PRICE		CODE	VENDOR	PRICE

Best Price - Fairly self explanatory. I need to know which vendor has the lowest price for each product code and the corresponding price.
Equal Price - For when both vendors have "Jiffy 1qt Creamy PB" at the same price.
No Duplicate - For when there are products/codes only one vendor carries.

3.how to create bar charts in excel, Demonstrated with particular examplels ?

Ans: Inserting Bar Charts in Microsoft Excel

While you can potentially turn any set of Excel data into a bar chart, It makes more sense to do this with data when straight comparisons are possible, such as comparing the sales data for a number of products. You can also create combo charts in Excel, where bar charts can be combined with other chart types to show two types of data together.

- To insert a bar chart in Microsoft Excel, open your Excel workbook and select your data. You can do this manually using your mouse, or you can select a cell in your range and press Ctrl+A to select the data automatically.
- Once your data is selected, click Insert > Insert Column or Bar Chart.
- Various column charts are available, but to insert a standard bar chart, click the “Clustered Chart” option. This chart is the first icon listed under the “2-D Column” section.
- Excel will automatically take the data from your data set to create the chart on the same worksheet, using your column labels to set axis and chart titles. You can move or resize the chart to another position on the same worksheet, or cut or copy the chart to another worksheet or workbook file.

Example:

Creating an 8 Column Chart in Excel:

The only data you need in an Excel worksheet to create an 8 column chart are two columns that contain 8 data points. An example of this might be a list of 8 sales staff and their associated sales totals for the current year.

To create a chart that contains the sales totals by name, first, highlight the cells from both columns that contain data (including headers), and follow the steps below.

1. Select **Insert**.
2. Select **Insert Column or Bar Chart** to open a drop-down list.
3. Choose a **2-D Column** chart.

This action inserts an 8 column, 2-D chart into your worksheet. Select the chart and drag the resize handles to change the size. Or, drag the chart to move it to a different location in your worksheet.

Note:

- The chart wizard was removed from Excel starting with version 2007. It has been replaced with the charting options in the ribbon as described above. While the column icons look slightly different in Excel 2013 vs. Excel 2016 (icons are greyscaled in 2013), the procedure above works the same.

If you have multiple columns of data, such as the year of sales and dollar value of sales shown in the example above, you can change which bar represents each data series.

To do this:

1. Right-click on either column in the column chart
2. Choose **Select Data** to open the Select Data Source dialog box**.**

From the Select Data Source dialog box, you can change how that bar represents the data in your worksheet in various ways.

- Select **Add** to add a new data series (which will add a new column to your chart).
- Select **Edit** to change the data that each column in your bar chart represents.
- Select **Remove** to remove any column in your chart.
- Choose a Series and select the blue **up** or **down arrows** to change the column order.

Format the Column Chart

You can change how your column chart looks by setting number formatting for the axis values, changing the chart title, or changing bar colors.

- **Change chart title**: Double-click the title and type the new text.
- **Change axis number formatting**: Right-click on the axis, select **Format Axis**, expand **Number**, and choose a number format from the **Category** drop-down list.
- **Change bar color**: **Right-click** on any bar, select **Fill** to open a drop-down list and choose any color you'd like for that series.

Note:

- Almost any element of a column chart can be formatted. Right-click a chart element and choose **Format**.

If you want to dig deeper into creating more complex graphs or charts in Excel 2013, make sure to read the Excel 2013 bar graph/column chart tutorial.

Create an 8 Column Chart in Excel 2010:

Creating a bar chart in Excel 2010 is similar to later versions, but there are some slight differences.

You'll start with the same two columns of data containing 8 data sets. Select both columns (including headers).

1. Select **Insert**.
2. Select **Column**.
3. Select the **2-D Column** chart from the drop-down menu.

These steps insert an 8 column, 2-D chart into your worksheet.

Format the Column Chart:

You can change the way your column chart looks in Excel 2010 using the same steps as for Excel 2019, 2016, or 2013, but changing the bars' color in your chart is slightly different.

1. Right-click on the bar you want to change.
2. Select **Format Data Series**.
3. Select **Fill**.
4. Select the type of fill style you want to use in the chart.
5. Choose a color from the **Color** drop-down list.

4.Create an analystic dashboard in python and present your findings?

Ans:

Steps to make an analystic dashboard in excel:

1. How to Bring Data into Excel:

Before creating dashboards in Excel, you need to import the data into Excel. You can copy and paste the data, or if you use CommCare, you can create an Excel Connection to your export. But, the best way is to use ODBC (or Live Data Connector). ODBC can connect your apps to Excel, passing real-time data from your app to Excel. As data is updated in your app, your Excel dashboard will also be updated to reflect the latest information. This is a perfect option if you track and store data in another place, and prefer creating a dashboard in Excel. Data can be imported two different ways: in a flat file or a pivot table.

2. Set Up Your Excel Dashboard File:

Once you have added your data, you need to structure your workbook. Open a new Excel Workbook and create two to three sheets (two to three tabs). You could have one sheet for your dashboard and one sheet for the raw data (so you can hide the raw data). This will keep your Excel workbook organized. In this example, we'll have two tabs.

3. Create a Table with Raw Data :

- In the Raw Data sheet, import or copy and paste your data. Make sure the information is in a tabular format. This means that each item or data point lives in one cell.

- In this example, we're adding columns for *Project Name, Timeline, Number of Team Members, Budget, Risks, Open Tasks,* and *Pending Actions*.
- If needed, you can use a formula to automatically add all the values in a column. We will do this for our *Budget, Risks, Open*, and *Pending Actions* columns. Click on an empty cell at the bottom of the column, and type =SUM(. After the open parenthesis, click the first cell in the column and drag your mouse down to the last cell. Then, add a close parenthesis to your formula. Repeat as necessary.

4. Analyze the Data:

Before building the dashboard, take some time to look at your data and figure out what you want to highlight. Do you need to display all the information? What kind of story are you trying to communicate? Do you need to add or remove any data?

Once you have an idea of your dashboard's purpose, think about the different tools you can use. Options include:

- Excel formulas like SUMIF, OFFSET, COUNT, VLOOKUP, GETPIVOTDATA and others
- Pivot tables
- Excel tables
- Data validation
- Auto-shapes
- Named ranges
- Conditional formatting
- Charts
- Excel dashboard widgets

- Macros

Don’t worry, you don’t need to know how to use every single one of these Excel tools. With some basic knowledge of charts and pivot tables, you can make a beautiful Excel dashboard.

5. Build the Dashboard:

Add a Gantt Chart

We’ll add a Gantt chart to visually show your project timeline.

- Go to your Dashboard sheet and click *Insert*.

- In the *Charts* section, click the bar chart icon and select the second option.
- You’ll now have to link this bar chart to the *Project Name, Start Date*, and *Duration* columns in your Raw Data sheet.

Create and Format Charts:

- In your Dashboard sheet, click *Insert* and select the kind of chart you’d like to make. For this first example, we’ll create a column chart.

- Right-click on the chart and click *Select Data*.

  Click *Add in Legend Entries (Series)*.

- In the *Series name* field, click the title of the column you want to add on the Raw Data sheet. Hit enter.

- In the *Series values field,* select all the data in that corresponding column. Hit enter and then click *Ok*.

- You'll notice that your X-axis is not correctly labeled. To fix this, click *Edit* in the *Horizontal (Category) Axis Labels* and in the Raw Data Sheet, select what you'd like to display on the X-axis.
- To add a title to your chart, select your chart and click the *Design tab*.

- Click *Add Chart Element > Chart Title > Above Chart*.
- Type your title in the text field on the chart.
- Repeat this process for any other charts you want to create.

Insert PivotTables:

A pivot table allows you to extract and highlight the most important information from a large data set.

Here's how to insert a pivot table:

- Go to your Dashboard sheet and on the *Insert* tab, click the *PivotTable* button.
- A pop-up box will appear. In the *Table/Range field*, click the icon at the end and and select your whole data table from your Raw Data sheet. Click *Ok*. The *PivotTable Field List* will appear on the right side of your screen. Select which subsets of data you would like to

include in your pivot table by clicking the boxes.

- If you'd like to include another pivot table in your dashboard, repeat steps 1-3.

6. Customize with Macros, Color, and More:

Now that you have the elements of your dashboard in place, it's time to customize the layout, colors, and typography, and add animation if you feel comfortable.

Customize Chart Colors and Font:

- Click on the section(s) of the chart where you'd like to change the color.

- In the *Home* tab, in the *Font* group, click the paint bucket icon and select the color you'd like to add.

- If you want to add a background color to a chart, right-click on the chart and select *Format Chart*. Under *Fill*, click *Solid Fill* and choose the background color from the paint bucket icon in the *Font* group.

- If you want to change your chart titles, click on a chart title and in the *Font* group, you can select your font type, size, and color.

- To add a title to your dashboard, put your cursor in the upper-right cell (A1) right-click, and select *Insert* > *Entire Row*. Do this a couple times until you have space to add a title. Then, select a

couple cells in the first empty row and in the *Alignment* group, click *Merge and Center*. You now have space to add your dashboard title.

5.how to connect excel with the data base?

Ans:

Connecting Excel to SQL Server

To start linking Excel to SQL Server, on the ribbon, click the DEVART tab and then click the **Get Data** button. This will display the Import Data wizard, where you need to create Excel SQL Server connection and configure query for getting data from SQL Server to Excel:

1. Specify Connection Parameters

In the Connection Editor dialog box, you need to enter the necessary connection parameters:

- **Login details** - select whether to use Windows authentication or SQL Server authentication. In the latter case you need to enter your SQL Server user name and password.
- **User name** - your SQL Server user name. Required only for SQL Server authentication.
- **Password** - your SQL Server password. Required only for SQL Server authentication.
- **Database** - the name of SQL database to connect to Excel.

If you need to configure your Excel SQL Server connection in more details, you can optionally click the Advanced button and configure

advanced connection parameters. There you can configure connection encryption, resiliency parameters, etc.

To check whether you have connected Excel to SQL Server correctly, click the **Test Connection** button.

2. Select whether to Store Connection in Excel Workbook:

You may optionally change settings how the connection and query data are stored in the Excel workbook and in Excel settings:

- **Allow saving add-in specific data in Excel worksheet** - clear this check box in case you don't want to save any Excel add-in specific data in the Excel worksheet - connections, queries, etc. In this case, if you want to reload data from SQL Server to Excel or save modified data back to SQL Server, you will need to reenter both the connection settings and query.
- **Allow saving connection string in Excel worksheet** - clear this check box if you want your SQL Server connection parameters not to be stored in the Excel. In this case you will need to reenter your connection settings each time you want to reload SQL Server data or modify and save them to SQL Server. However, you may share the Excel workbook, and nobody will be able to get any connection details from it.
- **Allow saving password** - *it is recommended to clear this check box*. If you don't clear this check box, all the connection settings, including your SQL Server password, will be stored in the Excel workbook. And anyone having our Excel Add-in for SQL Server and the workbook will be able to link Excel to the SQL Server, get

data from it, and modify them. But in this case you won't need to reenter anything when reloading data from SQL Server to Excel or saving them to SQL Server.

- **Allow reuse connection in Excel** - select this check box if you want to save this connection on your computer and reuse it in other Excel workbooks. It does not affect saving connection parameters in the workbook itself. You need to specify the connection name, and after this you will be able to simply select this connection from the list

3. Configure Query to Get Data:

To export data from Salesforce to Excel, you may either use Visual Query Builder to configure a query visually, or switch to the SQL Query tab and type the SQL Query. To configure query visually, do the following:

1. In the **Object** list select the SQL Server table to load its data to Excel.

2. In the tree below clear check boxes for the columns you don't want to import data from.

3. Optionally expand the relation node and select check boxes for the columns from the tables referenced by the current table's foreign keys to add them to the query.

4. In the box on the right you may optionally configure the filter conditions and ordering of the imported data and specify the max number of rows to load from SQL Server to Excel. For more

information on configuring the query you may refer to our documentation, installed with the Excel Add-ins.

After specifying the query, you may optionally click **Next** and preview some of the first returned rows. Or click **Finish** and start data loading

Editing Live SQL Server Data

After the data is loaded from SQL Server to Excel, you can work with these data like with usual Excel worksheet. You can instantly refresh data from SQL Server by clicking **Refresh** on the Devart tab of the ribbon, and thus, always have fresh live data from SQL Server in your workbook.

If you want to edit SQL Server data in Excel and save them back to SQL Server, you need to click **Edit Mode** on the Devart tab of the ribbon first. Otherwise, the changes you make cannot be saved to SQL Server.

After you start the Edit mode, you can edit the data as you usually do it in excel - delete rows, modify their cell values. Columns that cannot be edited in SQL Server, will have Italic font, and you cannot edit values in these columns. To add a new row, enter the required values to the last row of the table that is highlighted with green.

To apply the changes to actual data in the database, click the **Commit** button. Or click **Rollback** to rollback all the changes. Please note that the changes are not saved to the database till you click **Commit**, even if you save the workbook.