**Excel Assignment 1**

1. What is Excel? Why do we use Excel?

Excel is a software program that uses spreadsheets to organize numbers and data with formulas and functions. It is one of the best platforms to analyze the data, find information, prepare charts, and present them to decision-makers.

1. List all the versions of Microsoft Excel. Compare Excel software provided by multiple vendors.

List of versions of Microsoft excel

* Excel 1.0 (1985)
* Excel 2.0 (1987)
* Excel 3.0 (1990)
* Excel 4.0 (1992)
* Excel 5.0 (1993)
* Excel 95 (7.0 - 1995)
* Excel 97 (8.0 - 1997)
* Excel 2000 (9.0 - 1999)
* Excel 2002 (XP - 10.0 - 2001)
* Excel 2003 (11.0 - 2003)
* Excel 2007 (12.0 - 2007)
* Excel 2010 (14.0 - 2010)
* Excel 2013 (15.0 - 2013)
* Excel 2016 (16.0 - 2015)
* Excel 2019 (16.0 - 2018)
* Excel for Microsoft 365 (Subscription Model - Ongoing)

Excel is a spreadsheet software provided by various vendors, with Microsoft Excel being the most prominent. Microsoft Excel offers a comprehensive feature set, robust data analysis tools, and seamless integration with other Microsoft Office applications. Google Sheets, a cloud-based offering, emphasizes real-time collaboration and accessibility from any device but may have limitations in advanced functions. LibreOffice Calc, part of the open-source LibreOffice suite, offers compatibility with Microsoft formats and extensive formula support.

1. How to create bar charts in Excel, demonstrated with practical examples.

Creating bar charts in Excel is a common task and can be done using Excel's Charting tools. Here is the process of creating a simple bar chart with practical examples.

Ex: Creating a Basic Bar Chart

Let’s say, a dataset like this, representing sales data for different months:

|  |  |
| --- | --- |
| **Month** | **Sales** |
| January | 500 |
| February | 700 |
| March | 600 |
| April | 900 |
| May | 800 |

To create a bar chart for this data:

1. Select the data you want to include in the chart. In this case, select the "Month" column and the "Sales" column.

2. Go to the "Insert" tab in the Excel ribbon.

3. In the "Charts" group, click on the "Bar Chart" dropdown arrow.

4. Choose the type of bar chart you want. For a simple vertical bar chart, select "Clustered Bar" or "Bar" under the "2-D Bar" section.

A bar chart will be inserted into your worksheet and it will look something like this.

1. Create an analytics dashboard in Python and present your findings.
2. How to connect Excel with the databases

We can connect Excel with the databases by various methods depending on type of the data

Some of the methods are ODBC (Open Database Connectivity), Microsoft Query, Power query, and excel Add-ins.