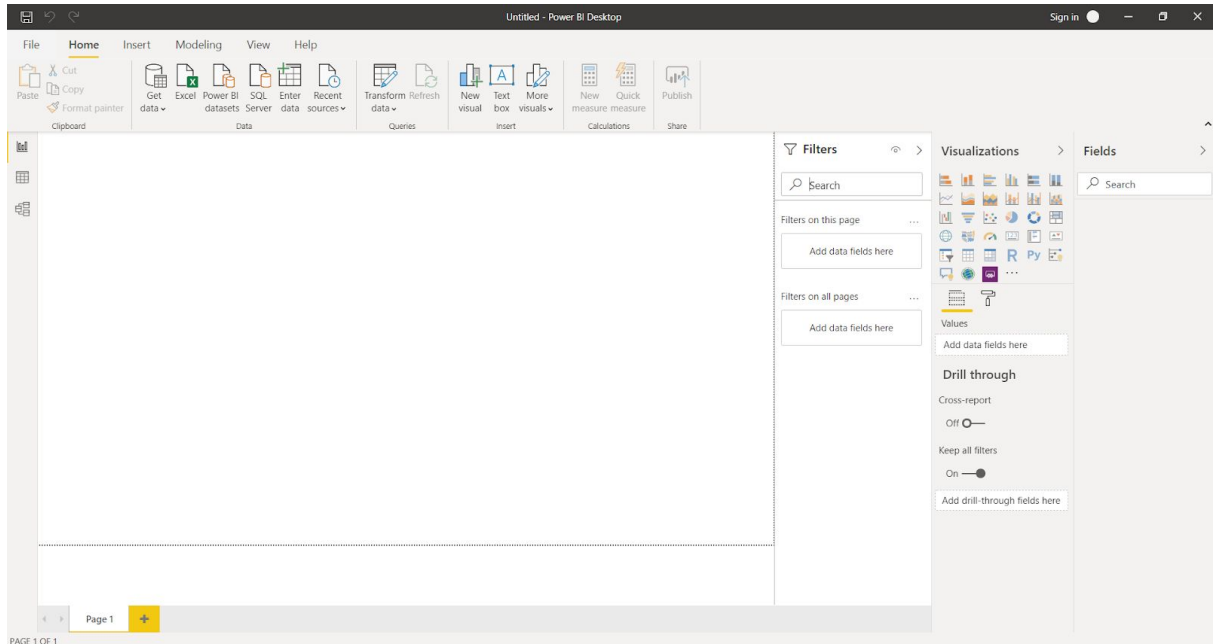


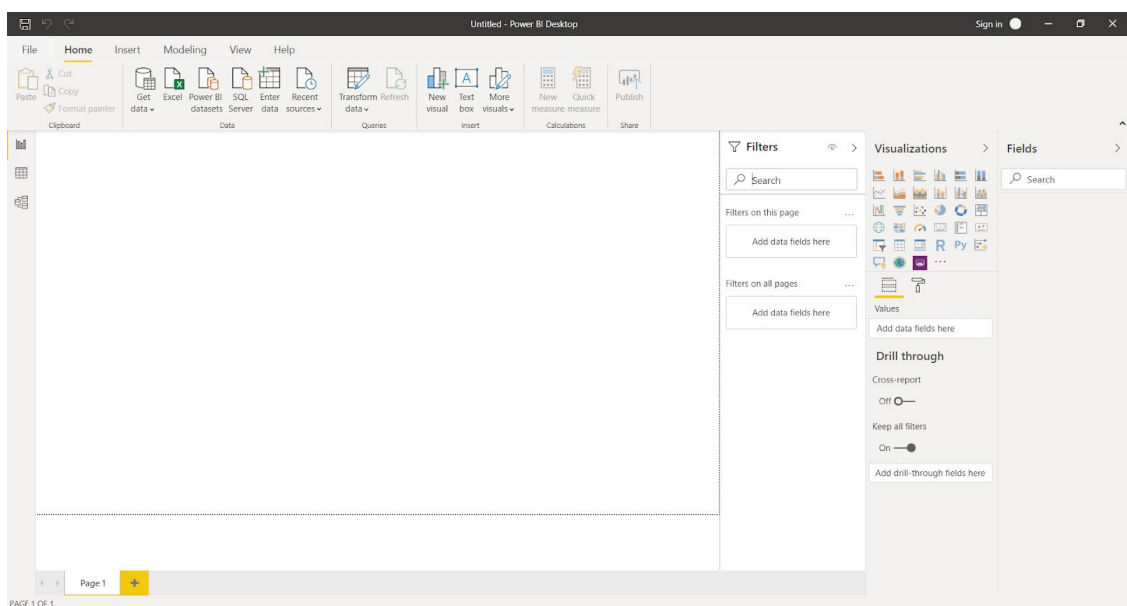
Assignment 1 : Power BI Installation

1. After Installation: Report view page



2. Power BI Fundamental Views:

a. Report View

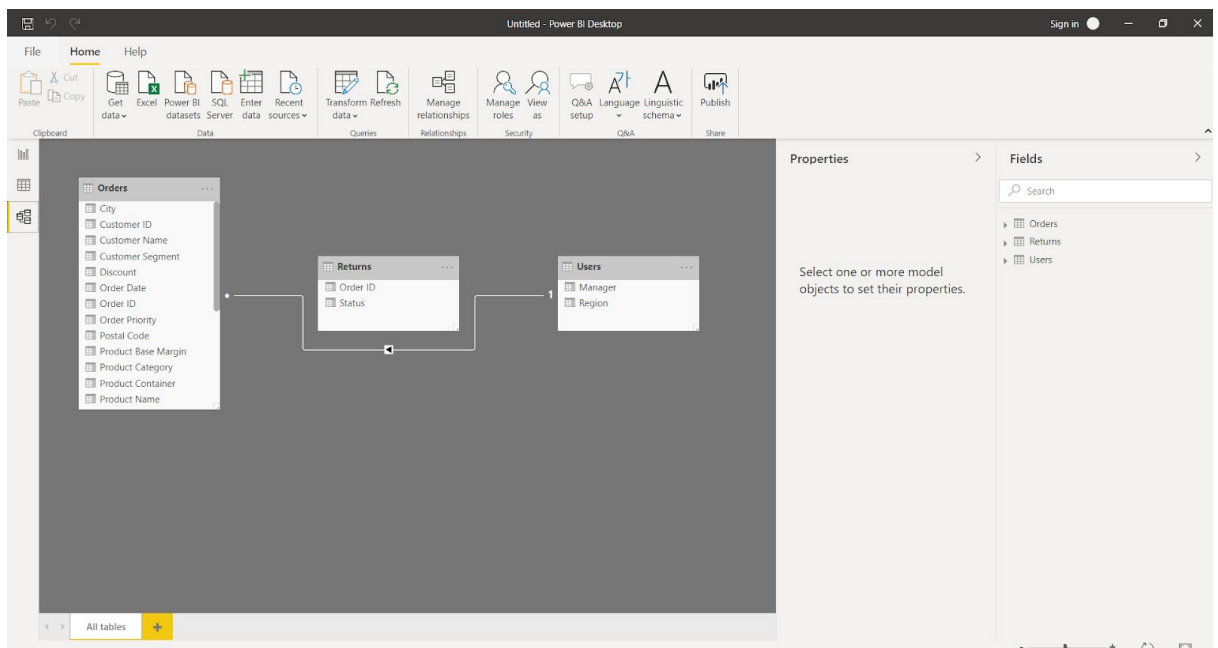


b. Data View

The screenshot shows the Power BI Desktop interface in Data View. The main area displays a table with 14 columns: Row ID, Order Priority, Discount, Unit Price, Shipping Cost, Customer ID, Customer Name, Ship Mode, Customer Segment, Product Category, Product Sub-Category, Product Container, and Product Name. The table contains 34 rows of data. On the right, the Fields pane shows a search bar and a list of tables: Orders, Returns, and Users. The Orders table is selected.

Row ID	Order Priority	Discount	Unit Price	Shipping Cost	Customer ID	Customer Name	Ship Mode	Customer Segment	Product Category	Product Sub-Category	Product Container	Product Name
20334	Low	0.04	6.48	5.74	119	Judy Kennedy	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 1994
18129	Low	0.02	6.48	5.9	119	Judy Kennedy	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 1996
24273	Not Specified	0.02	6.48	9.17	194	Tammy Goldman	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 215
16904	High	0.06	6.48	6.74	247	Marshall Brandt Briggs	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 214
19823	Medium	0.08	6.48	7.03	266	Ross Frederick	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 216
24425	Low	0.06	6.48	7.84	300	Larry W Lehman	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 213
24864	Medium	0.01	6.48	7.49	358	Chris F Brandt	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 210
24662	Low	0.08	6.48	7.91	500	Brenda Cowan	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 217
18593	High	0	6.48	7.88	533	James Dixon	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 214
20281	Medium	0.05	6.48	6.57	537	Nelson Coley	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 210
21274	Medium	0.06	6.48	7.37	600	Vickie Morse	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 1996
113	Not Specified	0.08	6.48	5.14	607	Clara Hauser	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 1996
6575	Medium	0.1	6.48	9.17	607	Clara Hauser	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 1905
18113	Not Specified	0.08	6.48	5.14	608	Daniel Jones	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 1995
24575	Medium	0.1	6.48	9.17	609	Shawn Adler	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 217
23207	Low	0.1	6.48	9.54	680	Laurence Poe	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 214
25208	Low	0.02	6.48	5.19	680	Laurence Poe	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 221
22735	Low	0	6.48	8.19	719	Stephen Lam	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 224
24851	Low	0.09	6.48	6.86	797	Eileen Riddle	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 214
24763	Critical	0.06	6.48	8.88	868	Sharon Ellis	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 214
2055	Critical	0.02	6.48	6.41	894	Gail Rankin Cole	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 214
7955	High	0.09	6.48	7.03	894	Gail Rankin Cole	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 214
25955	High	0.09	6.48	7.03	895	Gordon Sutherland	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 214
20055	Critical	0.02	6.48	6.41	896	Jennifer Siegel	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 224
19855	Low	0.09	6.48	8.88	1088	Jeremy Orr	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 1905
26163	High	0.02	6.48	9.54	1090	Seth Davies	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 21
23447	High	0.04	6.48	6.6	1113	Julia Reynolds	Regular Air	Corporate	Office Supplies	Paper	Small Box	Xerox 21

c. Model View



d. Power Query Editor

The screenshot shows the Power Query Editor window with a data table. The table has columns: Row ID, Order Priority, Discount, Unit Price, Shipping Cost, Customer ID, and Customer Name. The data is sorted by Row ID. The right-hand pane shows the 'Properties' and 'Applied Steps' sections. The 'Applied Steps' section lists the steps applied to the data: Source, Navigation, Promoted Headers, Changed Type, Removed Top Rows, Promoted Headers1, Changed Type1, and Removed Blank Rows.

e. Advance Editor

The screenshot shows the Advanced Editor window in Power Query. The query name is 'Sales Data'. The M code is as follows:

```
let
    Source = Csv.Document(File.Contents("C:\Users\Sirvan\Downloads\Sales By Geography.csv"),[Delimiter=";", Columns=4, Encoding=65001, QuoteStyle=QuoteStyle.Csv]),
    #"Changed Type" = Table.TransformColumnTypes(Source,{{"Column1", type text}, {"Column2", type text}, {"Column3", type text}, {"Column4", type text}}),
    #"Removed Top Rows" = Table.Skip(#"Changed Type",2),
    #"Promoted Headers" = Table.PromoteHeaders(#"Removed Top Rows", [PromoteAllScalars=true]),
    #"Changed Type1" = Table.TransformColumnTypes(#"Promoted Headers",{{"Country", type text}, {"State", type text}, {"City", type text}, {"SalesAmount", type number}}),
    #"Removed Blank Rows" = Table.SelectRows(#"Changed Type1", each not List.IsEmpty(List.RemoveMatchingItems(Record.FieldValues(_), {"", null}))),
    #"Rounded Off" = Table.TransformColumns(#"Removed Blank Rows",{{"SalesAmount", each Number.Round(_, 0), type number}}),
    #"Changed Type2" = Table.TransformColumnTypes(#"Rounded Off",{{"SalesAmount", Int64.Type}}),
    #"Split Column by Delimiter" = Table.SplitColumn(#"Changed Type2", "State", Splitter.SplitTextByDelimiter(" ", QuoteStyle.Csv), {"State.1", "State.2", "State.3", "State.4"}),
    #"Changed Type3" = Table.TransformColumnTypes(#"Split Column by Delimiter",{{"State.1", type text}, {"State.2", type text}, {"State.3", type text}, {"State.4", type text}}),
    #"Renamed Columns" = Table.RenameColumns(#"Changed Type3",{{"State.1", "First"}, {"State.2", "Second"}, {"State.3", "Third"}, {"State.4", "Fourth"}})
in
    #"Renamed Columns"
```

The right-hand pane shows the 'Properties' and 'Applied Steps' sections. The 'Applied Steps' section lists the steps applied to the data: Source, Changed Type, Removed Top Rows, Promoted Headers, Changed Type1, Removed Blank Rows, Rounded Off, Changed Type2, Split Column by Delimiter, Changed Type3, and Renamed Columns.

3. Types of Power BI Software

a. Power BI Desktop

Power BI Desktop is a free application you install on your local computer that lets you connect to, transform, and visualize your data. With Power BI Desktop, you can connect to multiple different sources of data, and combine them (often called *modeling*) into a data model. This data model lets you build visuals, and collections of visuals you can share as reports, with other people inside your organization. Most users who work on business intelligence projects use Power BI Desktop to create reports, and then use the *Power BI service* to share their reports with others.

Price: Available for Free

b. Power BI Pro

Power BI Pro is an individual user license that lets users read and interact with reports and dashboards that others have published to the Power BI service. Users with this license type can share content and collaborate with other Power BI Pro users. Only Power BI Pro users can publish or share content with other users or consume content that's created by others, unless a Power BI Premium capacity hosts that content.

Features:

- Self-service and modern BI in the cloud
- Collaboration, publishing, sharing, and ad-hoc analysis
- Fully managed by Microsoft

Price: **₹660.00** (Monthly price per user)

c. Power BI Premium

Power BI Premium consists of capacity in the Power BI service exclusively allocated to each organization. The capacity is supported by dedicated hardware fully managed by Microsoft. Organizations can choose to apply their dedicated capacity broadly, or allocate it to assigned workspaces based on the number of users, workload needs, or other factors—and scale up or down as requirements change.

Features:

- Enterprise BI, big data analytics, cloud and on-premises reporting
- Advanced administration and deployment controls
- Dedicated cloud compute and storage resources
- Allows any user to consume Power BI content

Price: **₹330,190** (Monthly price per dedicated cloud compute and storage resource with annual subscription)