

Lab Assignment – IA3 Scalar Visualizations – 1

Note on Software used for following Visualizations: (Tableau)

Tableau is a visual analytics platform transforming the way we use data to solve problems—empowering people and organizations to make the most of their data.

It includes:

- Easy to access from different sources.
- No need for any technical or programming knowledge, and Quick response for making a dashboard.
- In terms of connecting and sharing, it has various inbuilt advanced features such as: Collaboration and distribution, highly securable, Multiple data sources connection, Easy importation and exportation of the massive size of data.
- For easy accessibility and analysis, the data file can be downloaded locally on mobile or desktop, multilingual representation of data, real-time exploration of any dataset, etc.

Q) Create a dataset of 20 rows and 10 columns of data associated with any of your interested domain. The dataset shall include data of types: Qualitative and Quantitative (ordinal, nominal, interval and ratio – continuous / discrete).

For the created dataset, perform the following visualization of:

- a. Precise Comparison of Two or more categorical data**
- b. Two or more Continuous Data over a period of time**
- c. Numerical data across one or more categorical data**
- d. Relative Proportion of one or more categorical data**

Answer: Some Key points to note before visualization process.

1. Dataset Used:

The dataset used is that of the Placement Data at a given College. As mentioned on the parent website Kaggle; *“This data set consists of Placement data of students in a XYZ campus. It includes secondary and higher secondary school percentage and specialization. It also includes degree specialization, type and Work experience and salary offers to the placed students”*. Contains 20 Rows and 10 Columns as required by the question.

Link(s): <https://www.kaggle.com/benroshan/factors-affecting-campus-placement>
<https://mksaad.wordpress.com/2020/06/30/datasets-for-visualization/>

Categories Present in Dataset:

- **Qualitative: (Categorical Data)**
 - Degree T
 - Gender
 - Highschool Board (hsc b)
 - Status
 - Work Experience (Work ex)
- **Quantitative:**
 - Degree Percentage (Degree P)
 - Employability Test (Etest P%)
 - Secondary Education Percentage (ssc p%)
 - Higher Secondary Education Percentage (hsc p%)
 - Salary

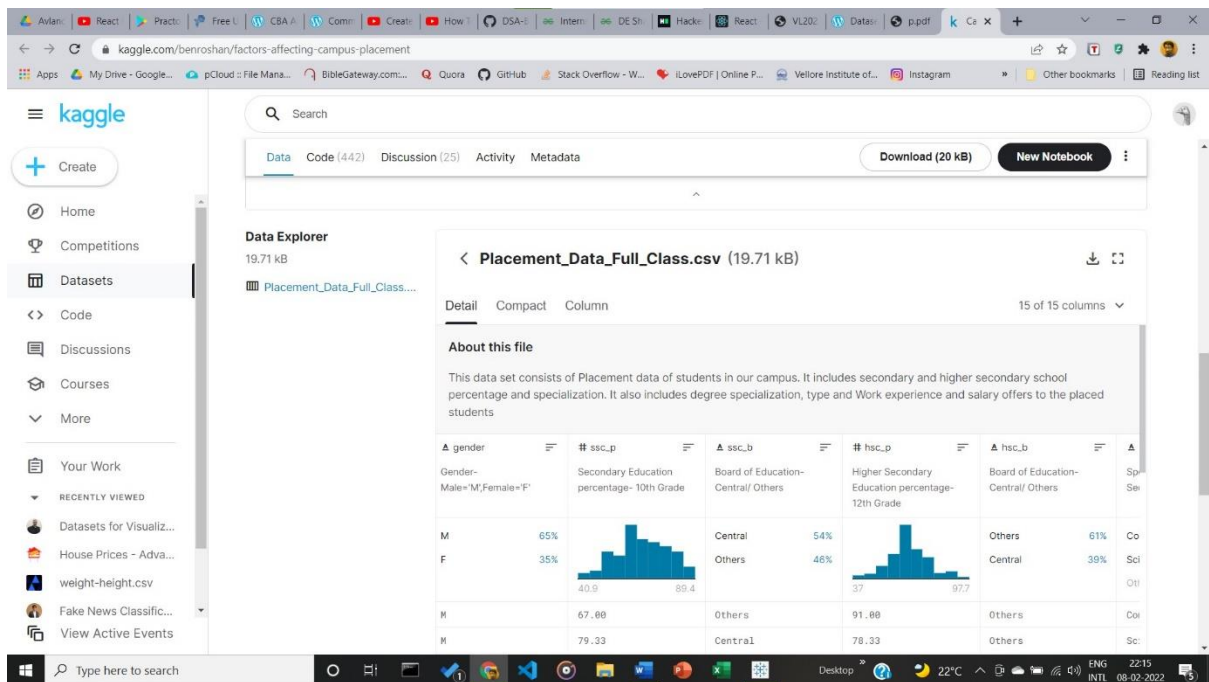


Tableau - Book2

File Data Server Window Help

Connections Add

Placement_Data_Full_Class

Placement_Data_Full_Class... 10 fields 20 rows

20 rows

Files

Use Data Interpreter
Data Interpreter might be able to clean your Text file workbook.

Placement_Data_Full_Class.csv

New Union

Table Details

Gender	Ssc P %	Hsc P %	Hsc B	Degree P	Degree T	Workex	Etest P %	Status	Salary
M	67.0000	91.0000	ISC	58.0000	Science	No	55.0000	Placed	270.0000
M	79.3300	78.3300	ISC	77.4800	Science	Yes	86.5000	Placed	200.0000
M	65.0000	68.0000	CBSE	64.0000	Management	No	75.0000	Placed	250.0000
M	56.0000	52.0000	State	52.0000	Commerce	No	66.0000	Not Placed	null
M	85.8000	73.6000	State	73.3000	Science	No	96.8000	Placed	425.0000
M	55.0000	49.8000	CBSE	67.2500	Management	Yes	55.0000	Not Placed	null
F	46.0000	49.2000	International	79.0000	Law	No	74.2800	Not Placed	null
M	82.0000	64.0000	State	66.0000	Law	Yes	67.0000	Placed	252.0000
M	73.0000	79.0000	CBSE	72.0000	Science	No	91.3400	Placed	231.0000
M	58.0000	70.0000	State	61.0000	Management	No	54.0000	Not Placed	null
M	58.0000	61.0000	CBSE	60.0000	Commerce	Yes	62.0000	Placed	260.0000
M	69.6000	68.4000	State	78.3000	Science	Yes	60.0000	Placed	250.0000
F	47.0000	55.0000	ISC	65.0000	Law	No	62.0000	Not Placed	null
F	77.0000	87.0000	International	59.0000	Management	No	68.0000	Placed	218.0000
M	62.0000	47.0000	State	50.0000	Science	No	76.0000	Not Placed	null
F	65.0000	75.0000	CBSE	69.0000	Law	Yes	72.0000	Placed	200.0000
M	63.0000	66.2000	State	65.6000	Commerce	Yes	60.0000	Placed	300.0000

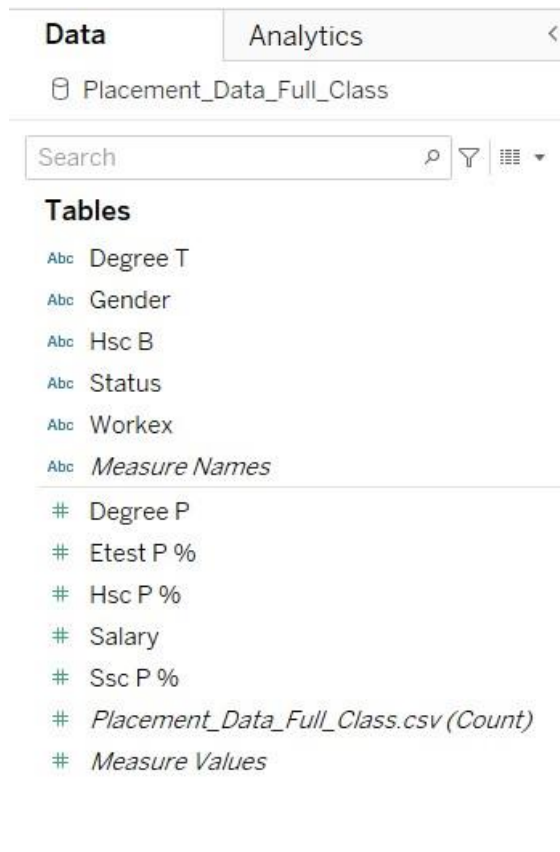
Data Source Sheet 3 Sheet 4 Sheet 5 Sheet 6

Name

Placement_Data_Full_Class.csv

Fields

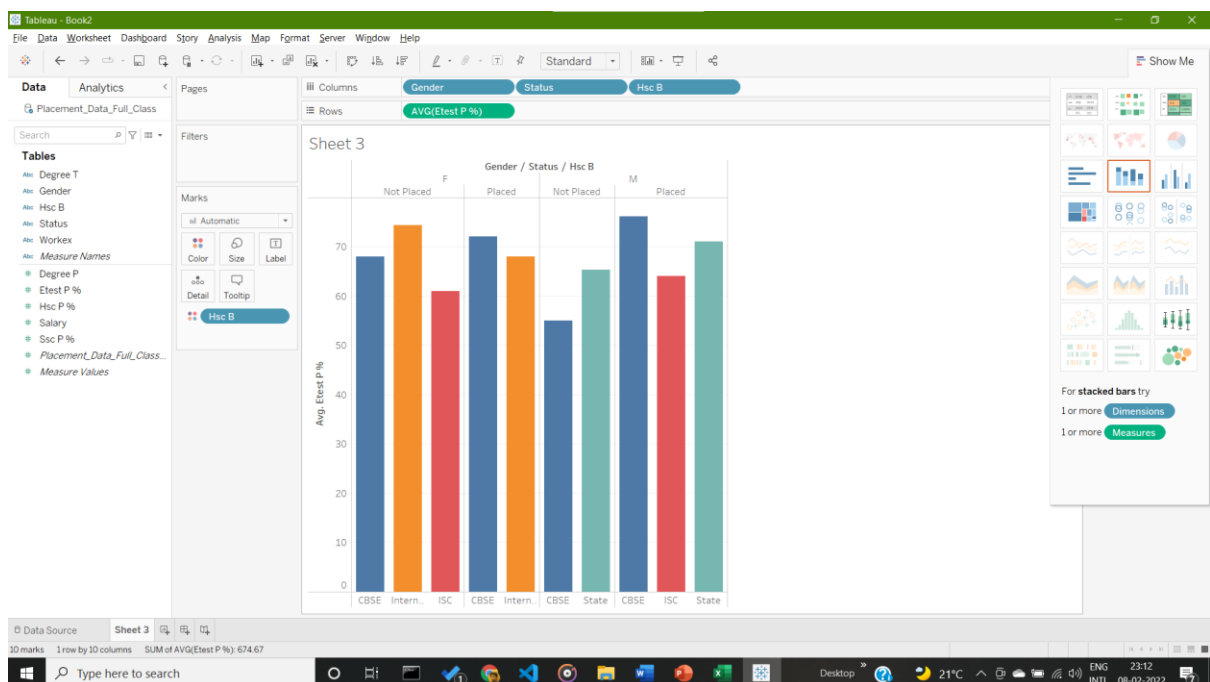
Type	Field Name	Physical Table	Remote Field Name
Abc	Gender	Placement_Data_Full_Class.csv	gender
#	Ssc P %	Placement_Data_Full_Class.csv	ssc_p %
#	Hsc P %	Placement_Data_Full_Class.csv	hsc_p %
Abc	Hsc B	Placement_Data_Full_Class.csv	hsc_b
#	Degree P	Placement_Data_Full_Class.csv	degree_p
Abc	Degree T	Placement_Data_Full_Class.csv	degree_t
Abc	Workex	Placement_Data_Full_Class.csv	workex
#	Etest P %	Placement_Data_Full_Class.csv	etest_p %
Abc	Status	Placement_Data_Full_Class.csv	status
#	Salary	Placement_Data_Full_Class.csv	salary



2. Visualization:

a. Precise Comparison of Two or more categorical data

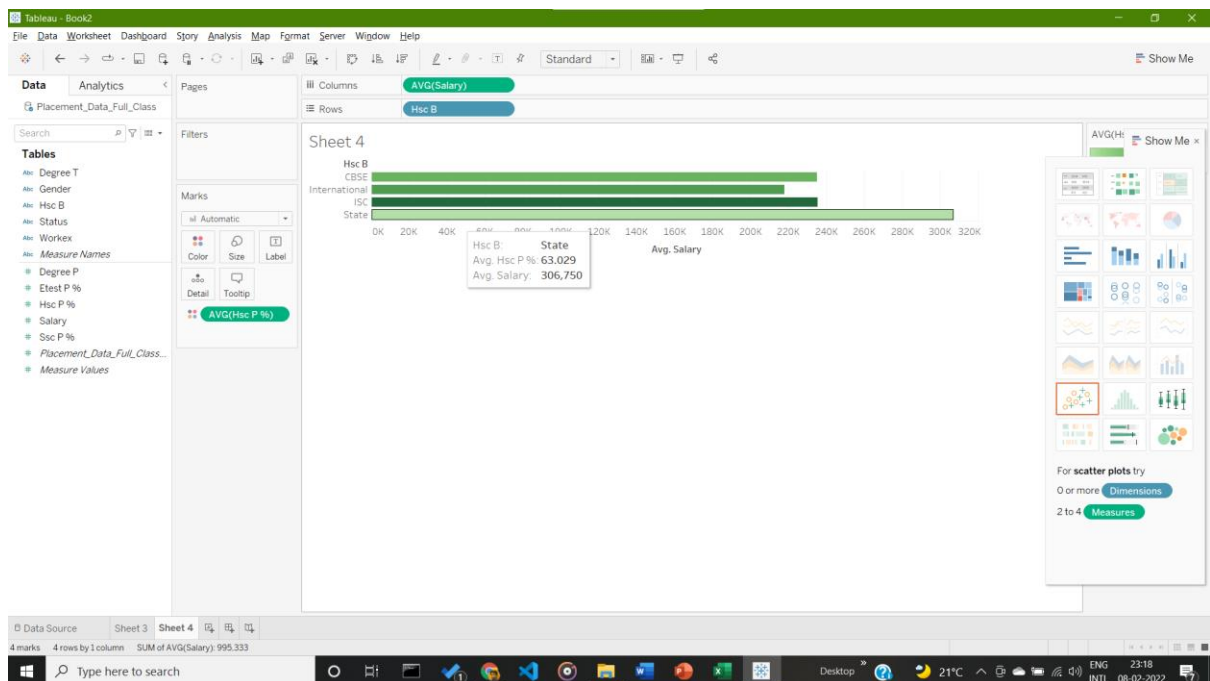
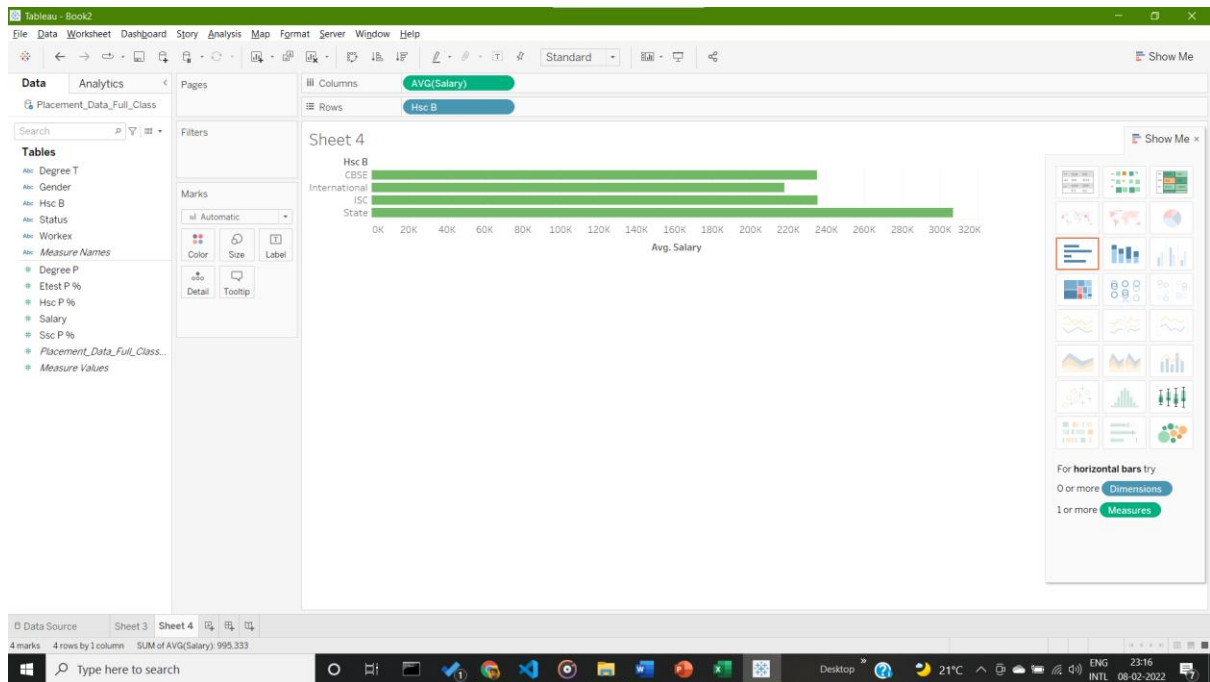
Generalization based on the three following Categorical Data: Status, Gender and Higher Secondary Scores, with data on x axis being Employability Test scores, to give a relation A student's gender, board marks and test scores with overall chance of getting placed.



Conclusion from Given Visualization: Highest Summation of Employability in given Dataset goes to Male who have are from CBSE at 76.11%

b. Two or more Continuous Data over a period of time

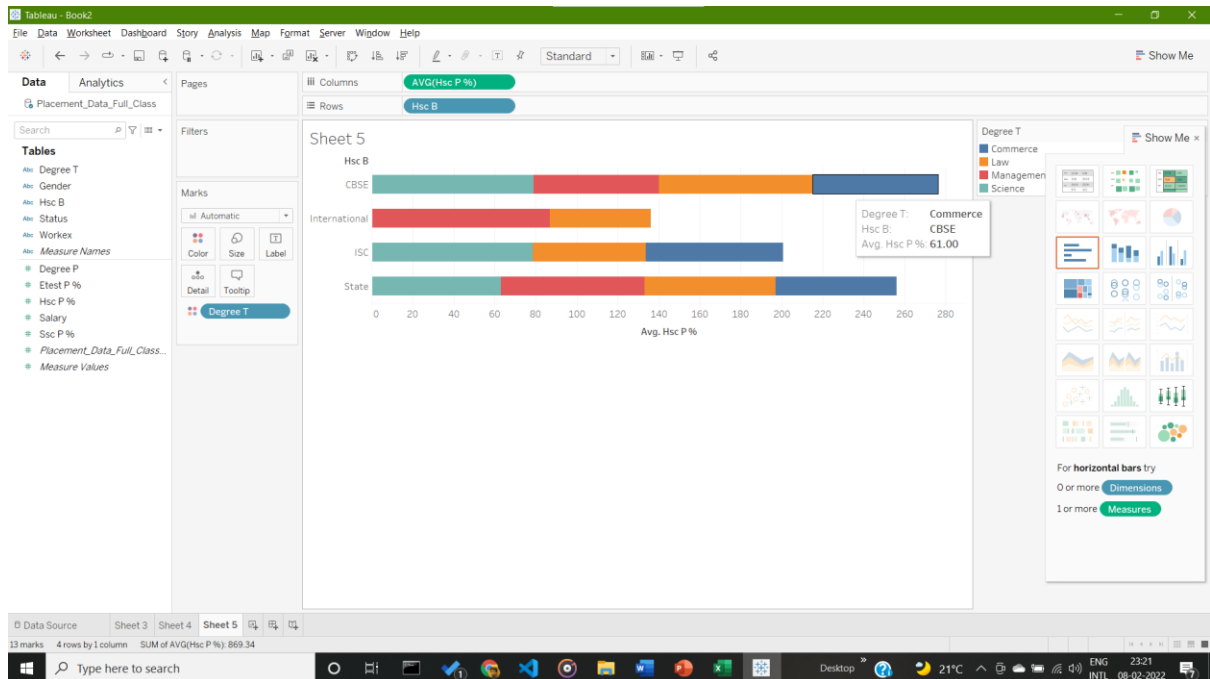
Generalization based on the two following Continuous Data: Salary and Board (Bo time related fields available)



Conclusion from Given Visualization: Highest Average Salary in given Dataset goes to Students from State with an average salary of 306,750.

c. Numerical data across one or more categorical data

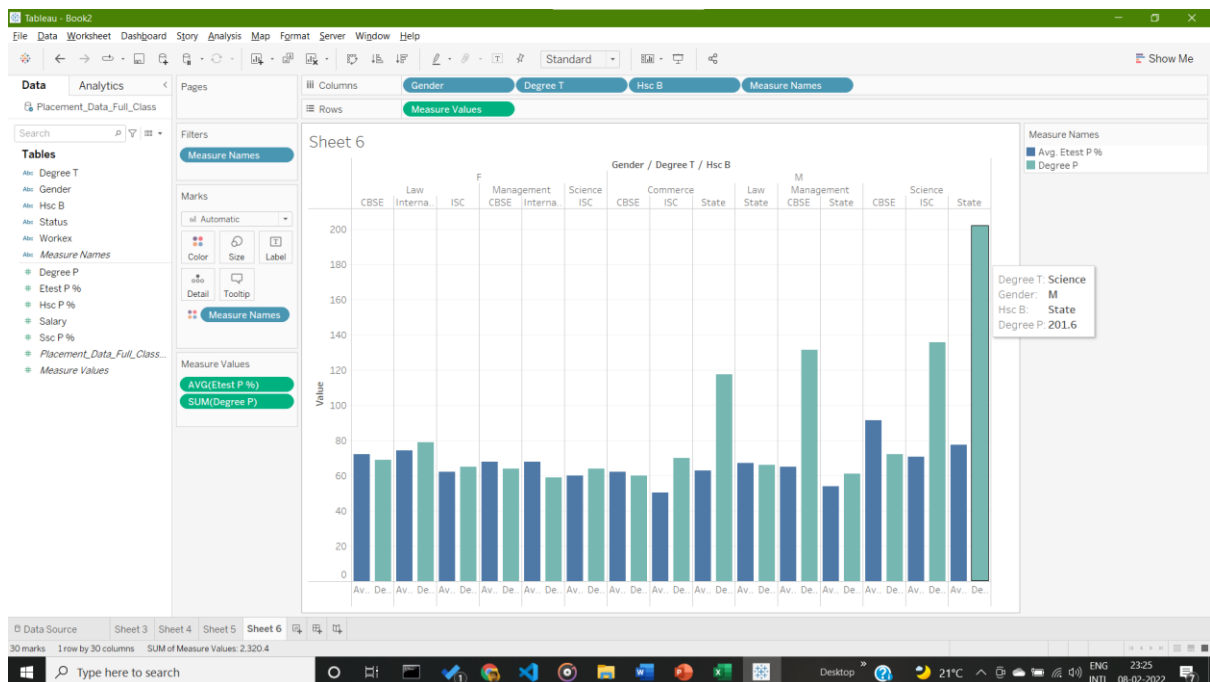
Generalization based on the three following Categorical and Numerical Data: Board, Average High School Board Marks and Field/Degree chosen.



Conclusion from Given Visualization: Highest Average Scores in High School Boards in given Dataset goes to CBSE Students within the Commerce field.

d. Relative Proportion of one or more categorical data

Generalization based on the 6 following Categorical Data: Degree, Gender, Hec B, Measure Names, Degree Scores, and Employability Test scores.



Conclusion from Given Visualization: Highest Cumulative Summation of Degree Test Scores in given Dataset goes to Male who have taken Science as their course and in the CBSE board.
