

Module 5: Advanced Visual Analytics

Demo Document III

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Demo III

Given weather data of past 34 years, use the data from 2011 to 2018 and create a report on rainfall forecast for the year 2019-20.

(Use Weather Data 1984-2018.xlsx Dataset)

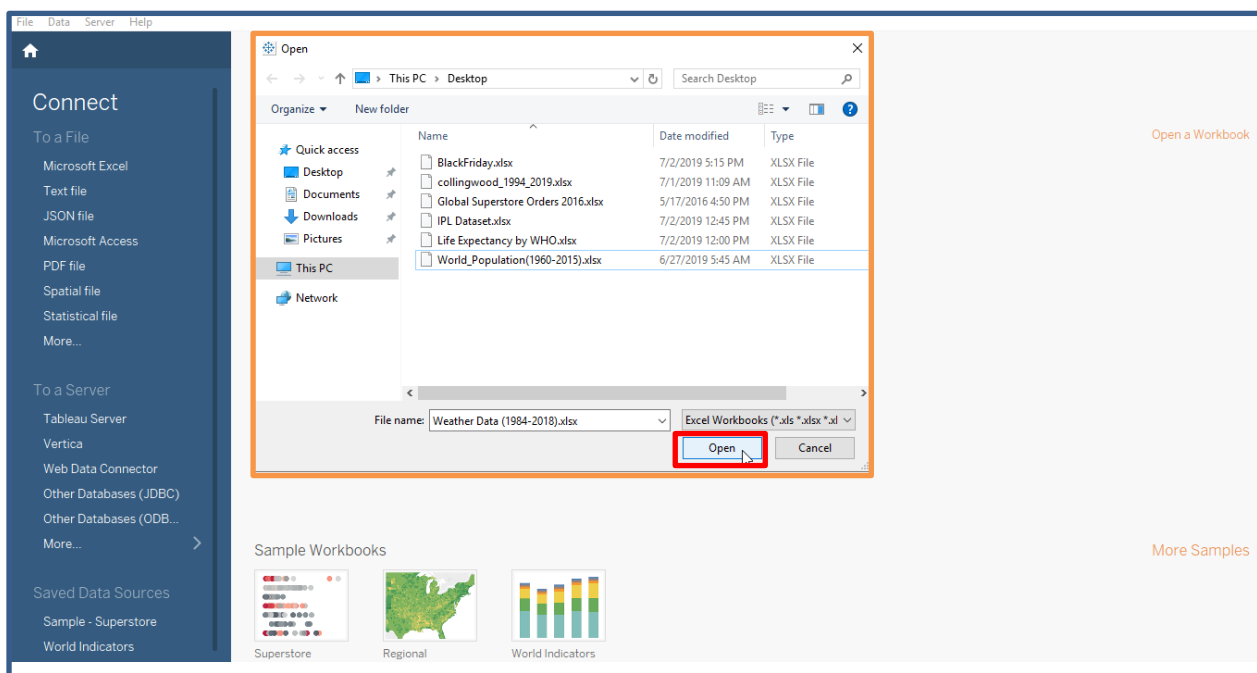
Demo III – Solution

Forecast models capture the evolving trend or seasonality of given data and extrapolate them into future.

Forecast feature of Tableau desktop allows you to forecast quantitative time series data using exponential smoothing model. The exponential smoothing gives more weight to recent observations than older observations.

Let us get started with creating a rainfall forecast report:

Step 1: Click on Connect → Microsoft Excel → Weather (1984-2018).xlsx



Step 2: Drag Data to flow pane.

File Data Server Window Help

Connections Add

Weather Data (1984-2018) Microsoft Excel

Sheets

Data

New Union

Data (Weather Data (1984-2018))

Connection Live Extract Filters 0 Add

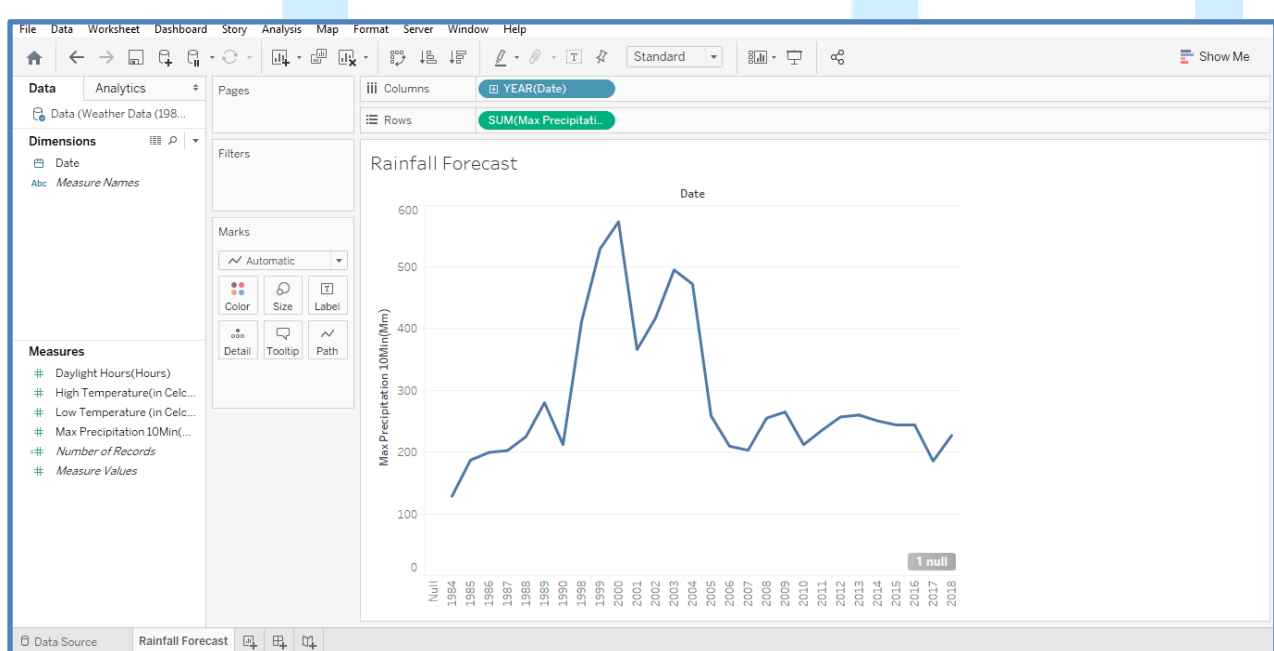
Data

Sort fields Data source order

Show aliases Show hidden fields 1,000 rows

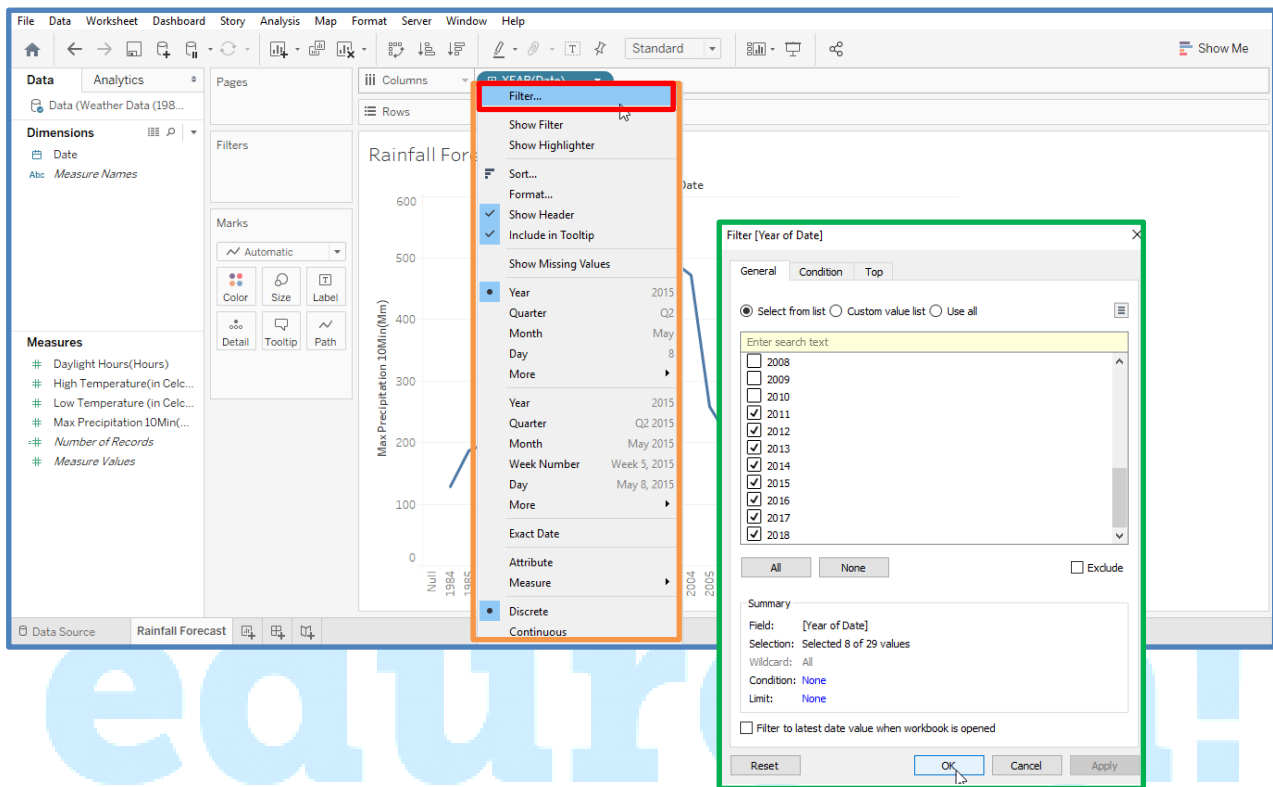
Date	High Temperature...	Low Temperature ...	Max Precipitation ...	Daylight Hours(Ho...
1/1/1984	10.1000	0.9000	0.0000	8.5000
1/2/1984	8.9000	0.3000	0.0000	7.0000
1/3/1984	7.7000	0.9000	1.0000	4.1000
1/4/1984	10.9000	1.5000	0.5000	6.5000
1/5/1984	7.6000	1.9000	0.0000	8.6000
1/6/1984	9.3000	1.3000	0.0000	8.7000
1/7/1984	8.7000	0.2000	0.0000	8.5000
1/8/1984	7.1000	-0.2000	0.0000	8.3000
1/9/1984	6.7000	0.0000	0.0000	7.0000

Data Source Sheet1

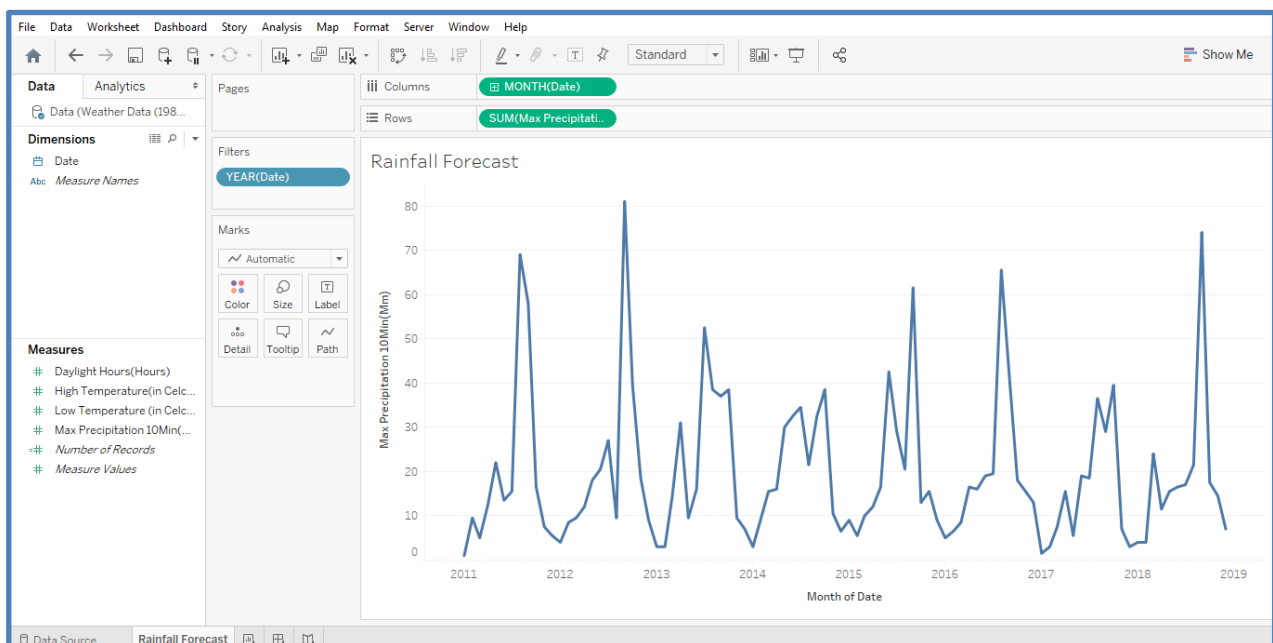
Step 3: Sheet 1 → Rename to Rainfall forecast (Optional) → Drag Date to Column shelf and Max Precipitation 10Min (in Mm) to Rows shelf

To analyze the data from 2011 to 2018:

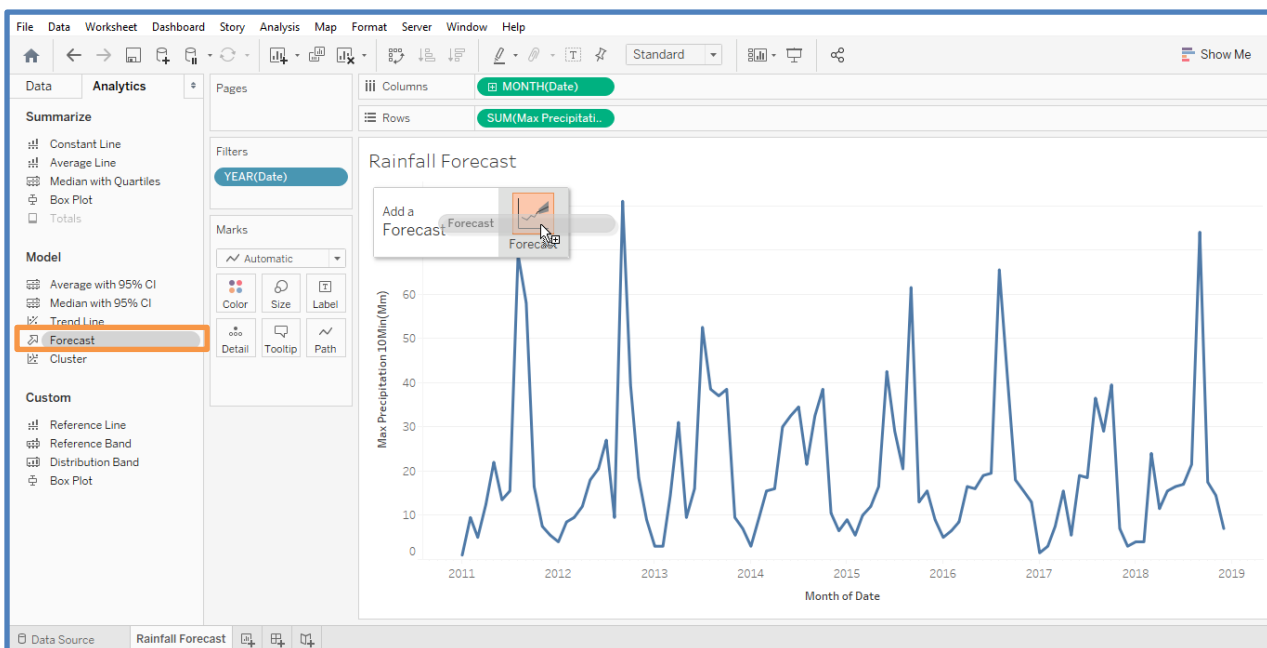
Step 4: Year → Drop down → Filter → Select from list → 2011 to 2018 → Apply → OK



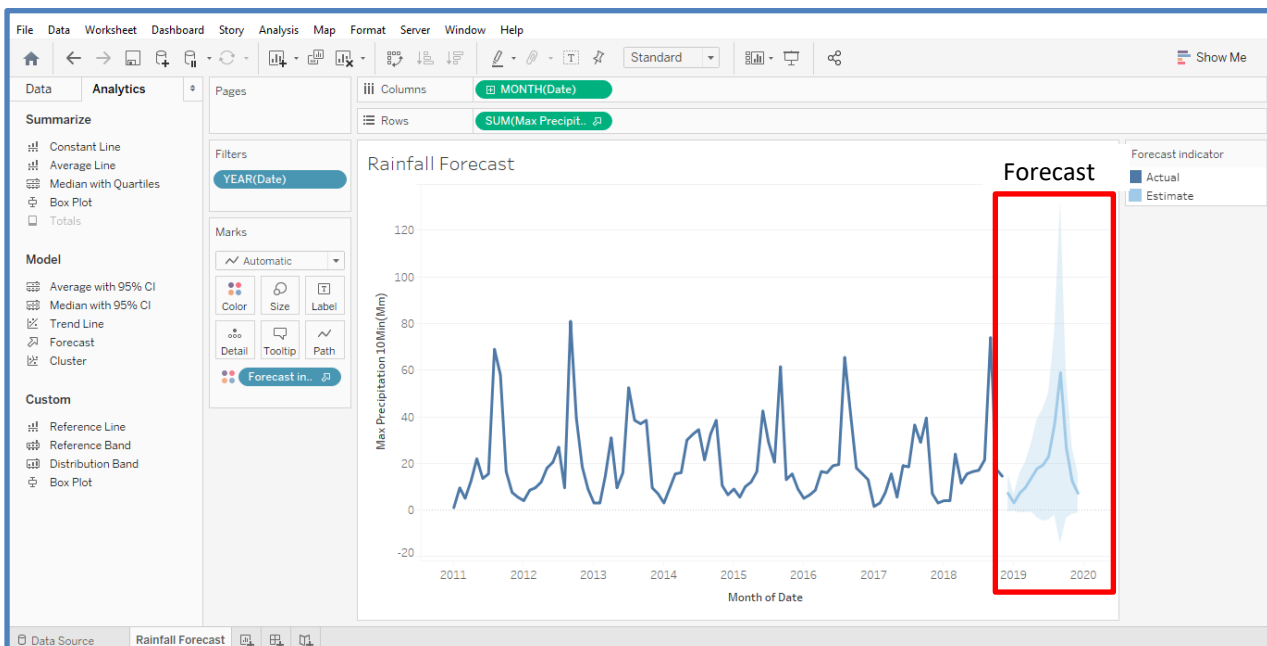
Step 5: Go to Year in Column shelf and change it to month for better visualisation.



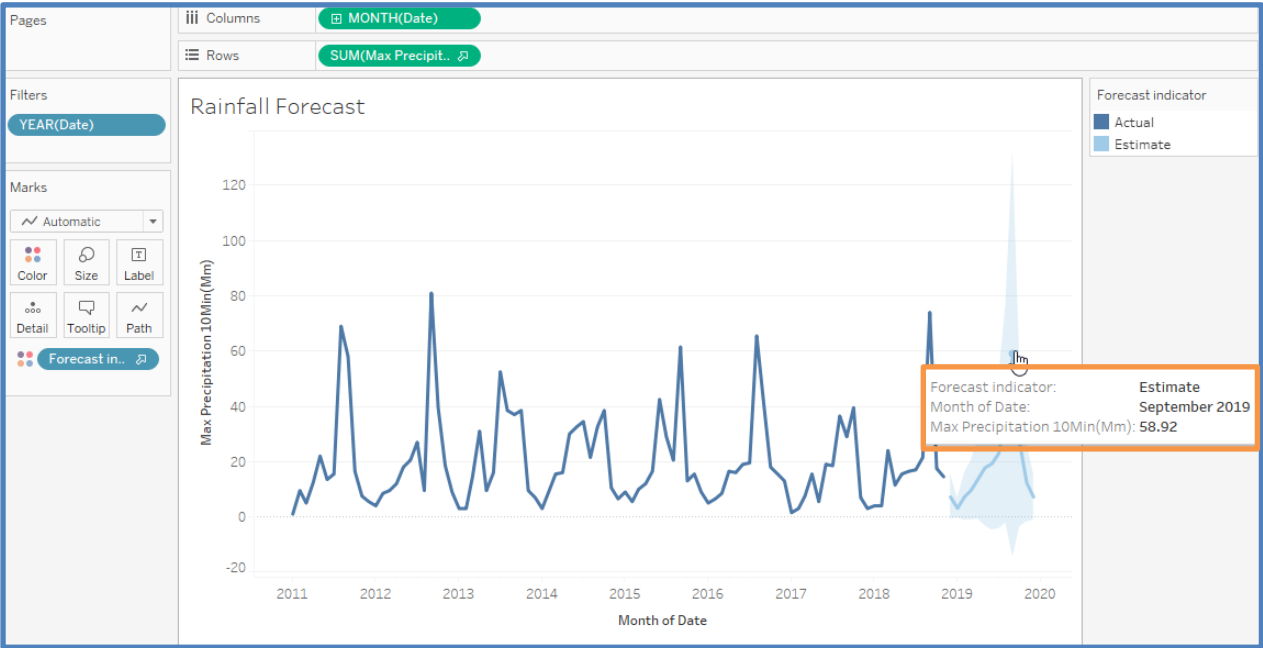
Step 6: Data pane → Analytics → Model → Forecast → Drag and drop on view pane



Forecast for year 2019-2020 can be visualized



Form the visualization below, we can forecast that in September 2019 we can expect the highest rainfall.



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