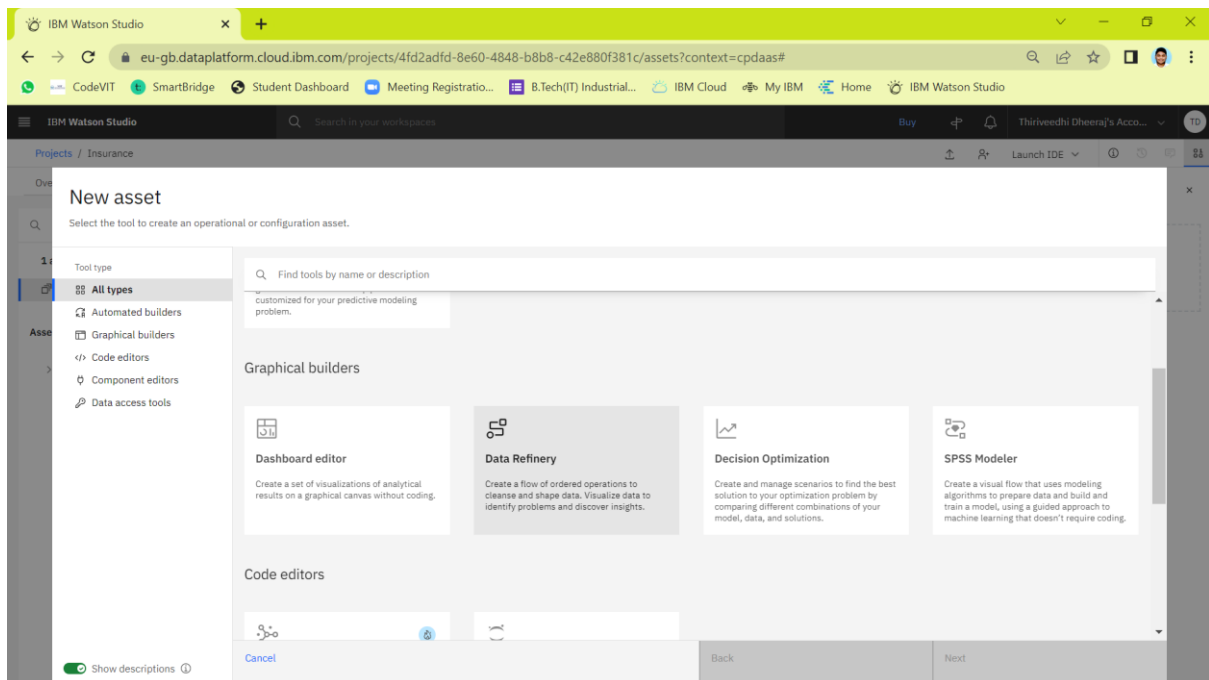
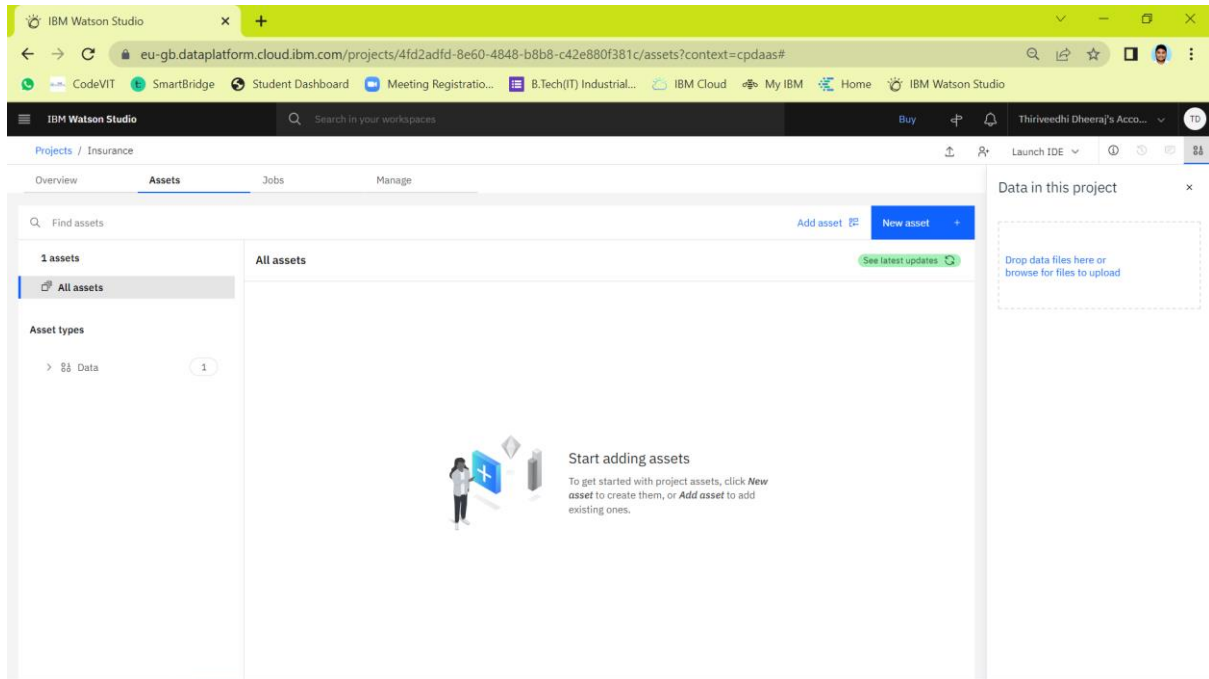


# Assignment - 4

Name: Thiriveedhi dheeraj

Reg No: 19BIT0066

Campus: VIT, Vellore



IBM Watson Studio

eu-gb.dataplatform.cloud.ibm.com/projects/4fd2adfd-8e60-4848-b8b8-c42e880f381c/assets?context=cpdaas#

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Projects / Insurance

Select data from project

Insurance 2 Data assets 1

Connection Data asset

insurance.csv

Selected assets 1/1

All assets details must load before final selection.

insurance.csv

Asset name  
insurance.csv

Asset details

Asset type: Data asset  
Size: 54 KB  
Last modified: 2022/04/30 16:55:44  
Created on: 2022/04/30 16:55:44

Cancel Select

IBM Watson Studio

eu-gb.dataplatform.cloud.ibm.com/shaper?context=data&dataset\_id=4f4e8005-d53e-4ca8-9c0e-d172bd203701&project\_id=4fd2adfd-8e60-4848-b...

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Projects / Insurance / insurance.csv / Refine data

Use a code template to add a step

Previewing the first 50 rows  
Reading and processing data sample...

|    | age | sex    | bmi    | children | smoker | region    | premium     |
|----|-----|--------|--------|----------|--------|-----------|-------------|
| 1  | 19  | female | 27.9   | 0        | yes    | southwest | 16884.924   |
| 2  | 18  | male   | 33.77  | 1        | no     | southeast | 1725.5523   |
| 3  | 28  | male   | 33     | 3        | no     | southeast | 4449.462    |
| 4  | 33  | male   | 22.705 | 0        | no     | northwest | 21984.47061 |
| 5  | 32  | male   | 28.88  | 0        | no     | northwest | 3866.8552   |
| 6  | 31  | female | 25.74  | 0        | no     | southeast | 3756.6216   |
| 7  | 46  | female | 33.44  | 1        | no     | southeast | 8240.5896   |
| 8  | 37  | female | 27.74  | 3        | no     | northwest | 7281.5056   |
| 9  | 37  | male   | 29.83  | 2        | no     | northeast | 6406.4107   |
| 10 | 60  | female | 25.84  | 0        | no     | northwest | 28923.13692 |
| 11 | 25  | male   | 26.22  | 0        | no     | northeast | 2721.3208   |
| 12 | 62  | female | 26.29  | 0        | yes    | southeast | 27808.7251  |
| 13 | 23  | male   | 34.4   | 0        | no     | southwest | 1826.843    |
| 14 | 56  | female | 39.82  | 0        | no     | southeast | 11090.7178  |
| 15 | 27  | male   | 42.13  | 0        | yes    | southeast | 39611.7577  |
| 16 | 19  | male   | 24.6   | 1        | no     | southwest | 1837.237    |
| 50 | 50  | female | 30.78  | 1        | no     | northeast | 10707.3363  |

SOURCE FILE: insurance.csv SAMPLE SIZE: First 50 rows

Details Help

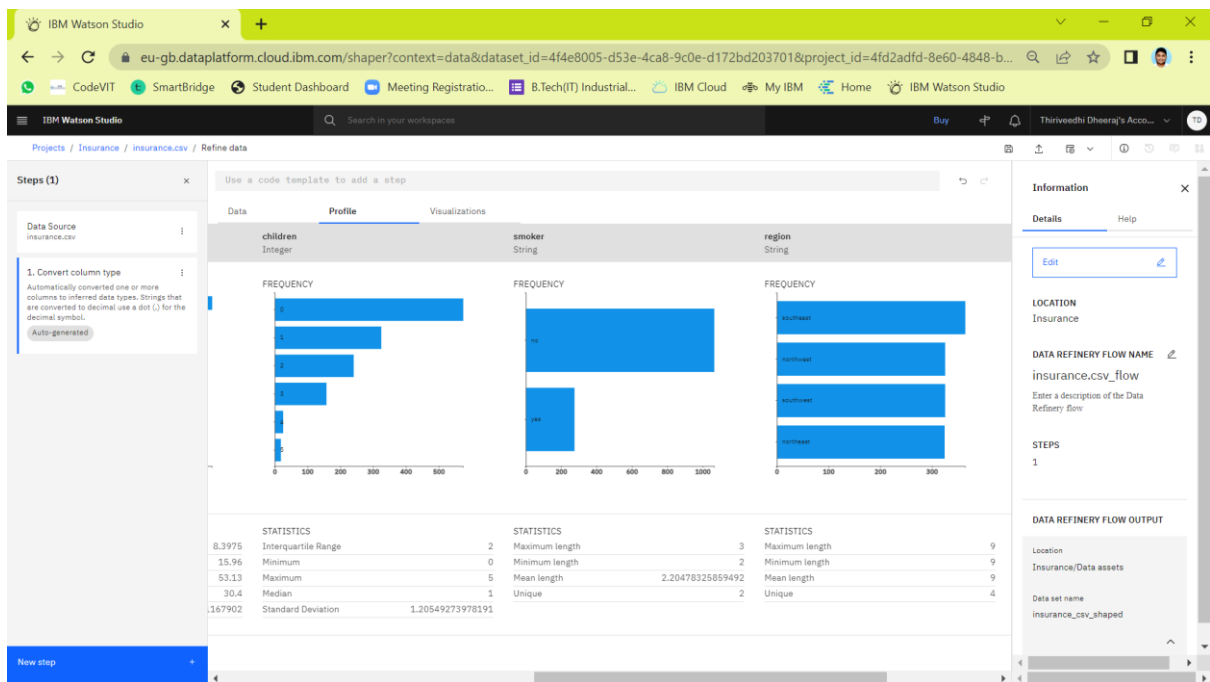
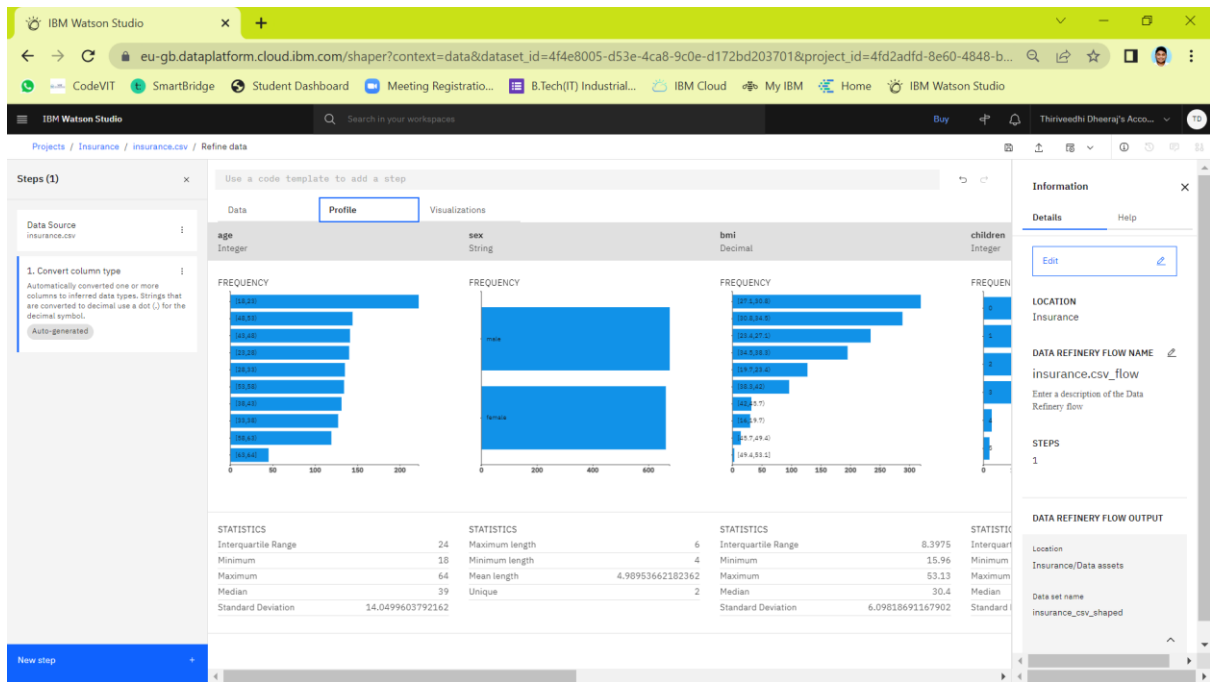
Edit

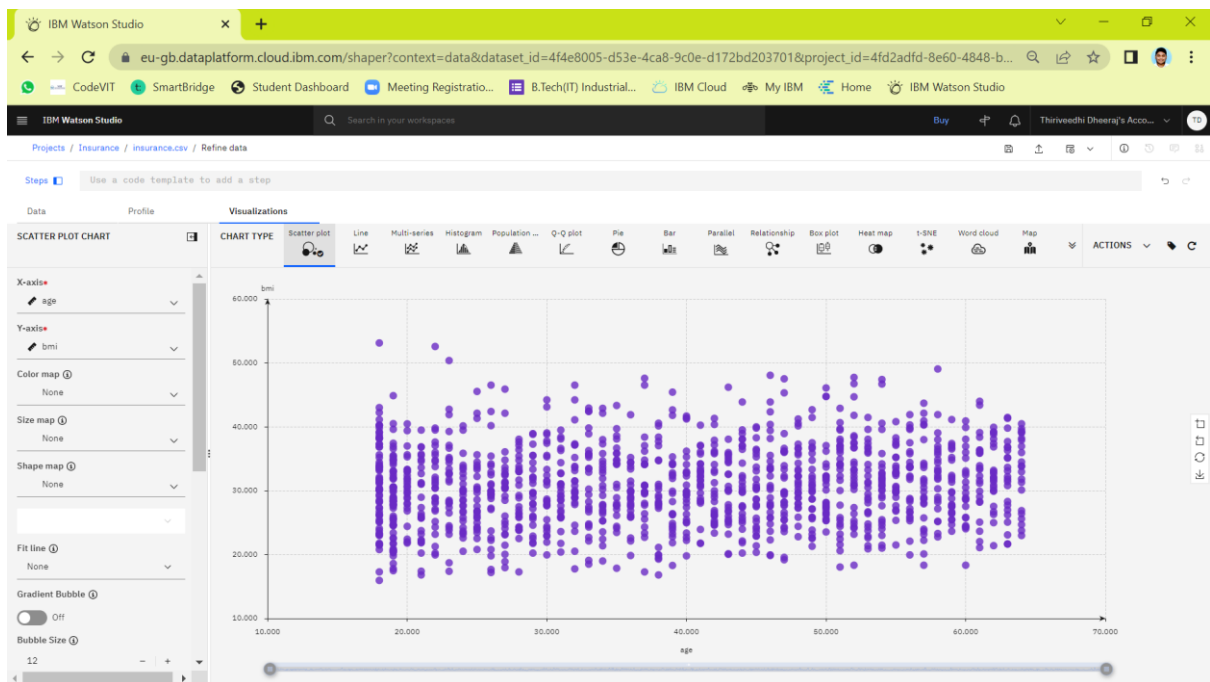
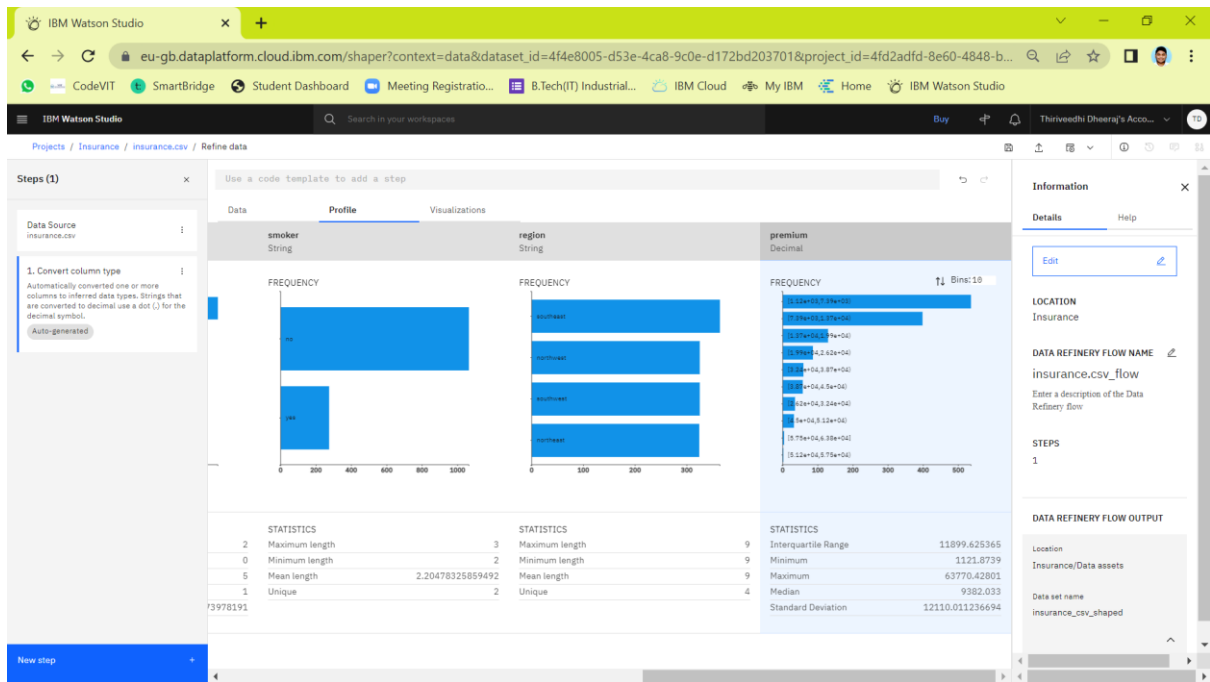
LOCATION  
Insurance

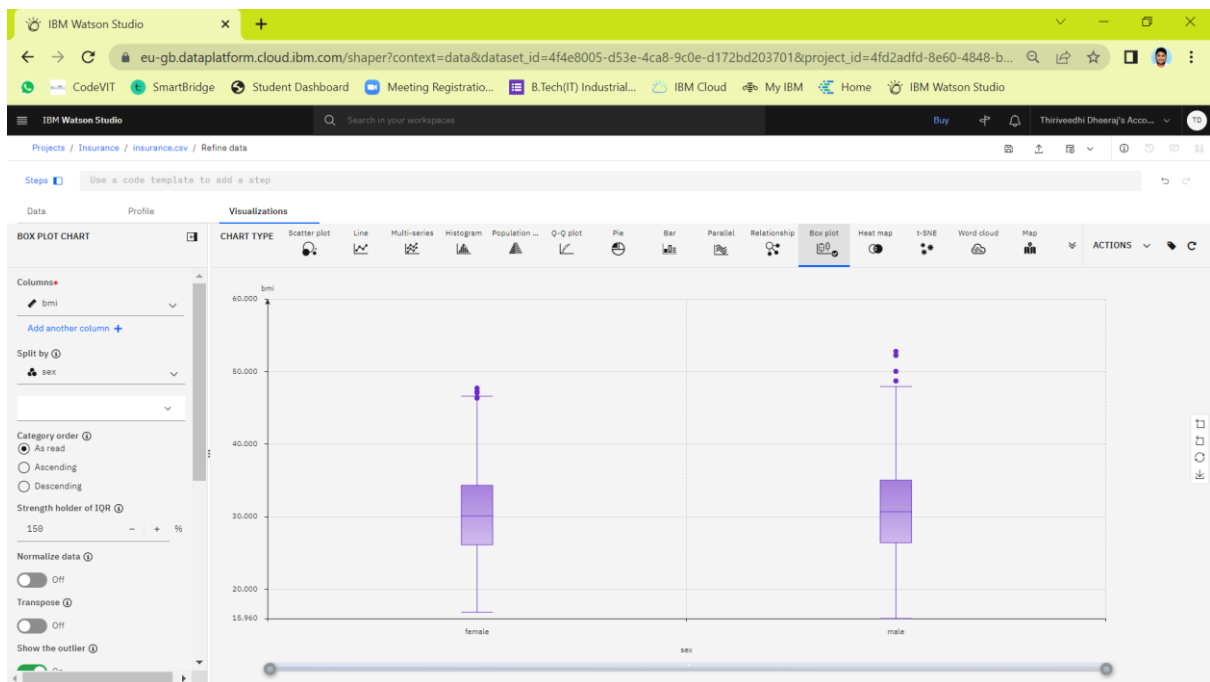
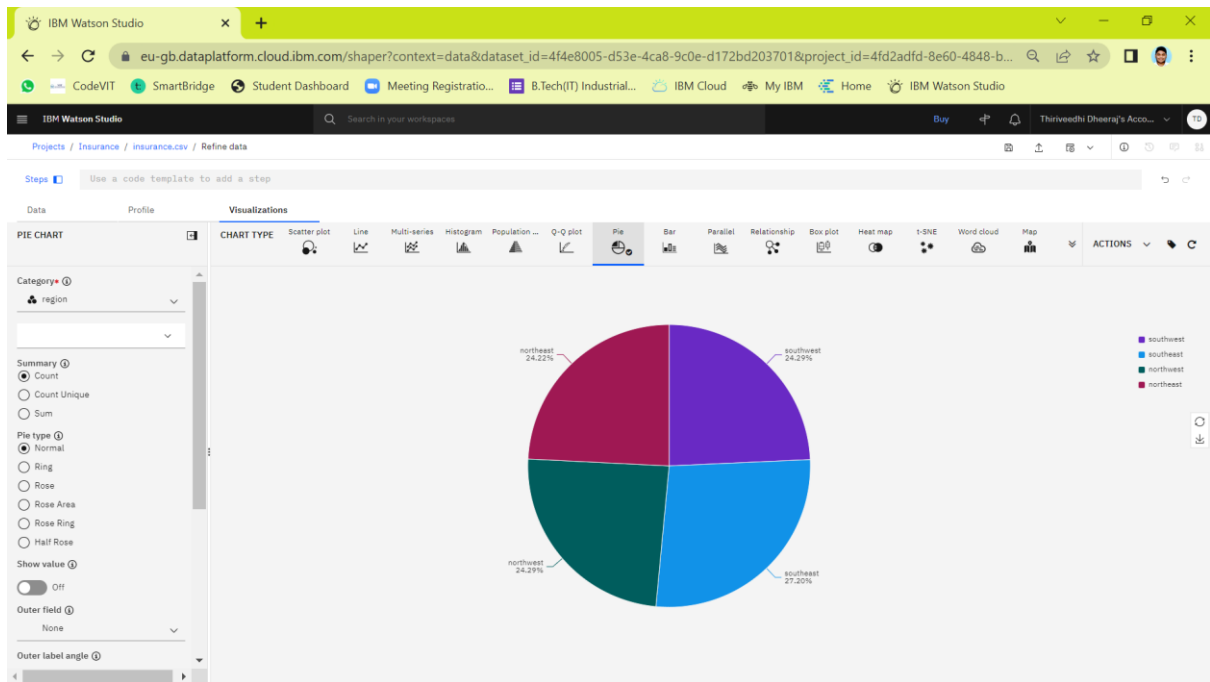
DATA REFINERY FLOW NAME  
insurance.csv\_flow  
Enter a description of the Data Refinery flow

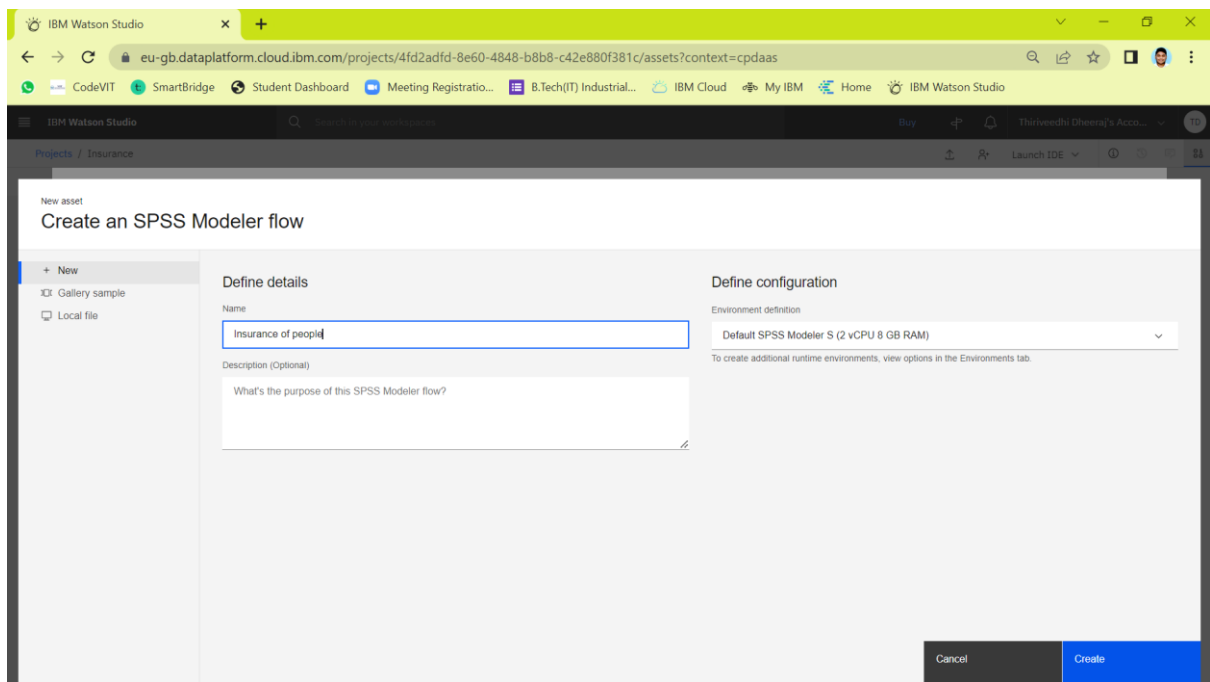
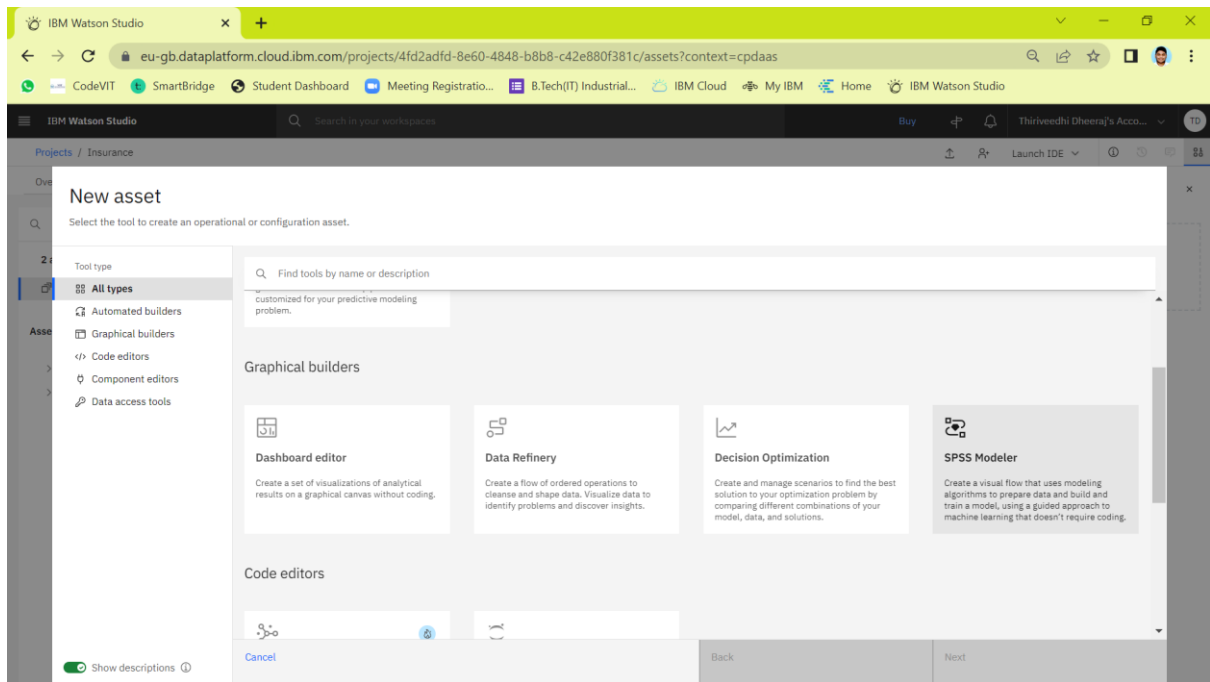
STEPS  
0

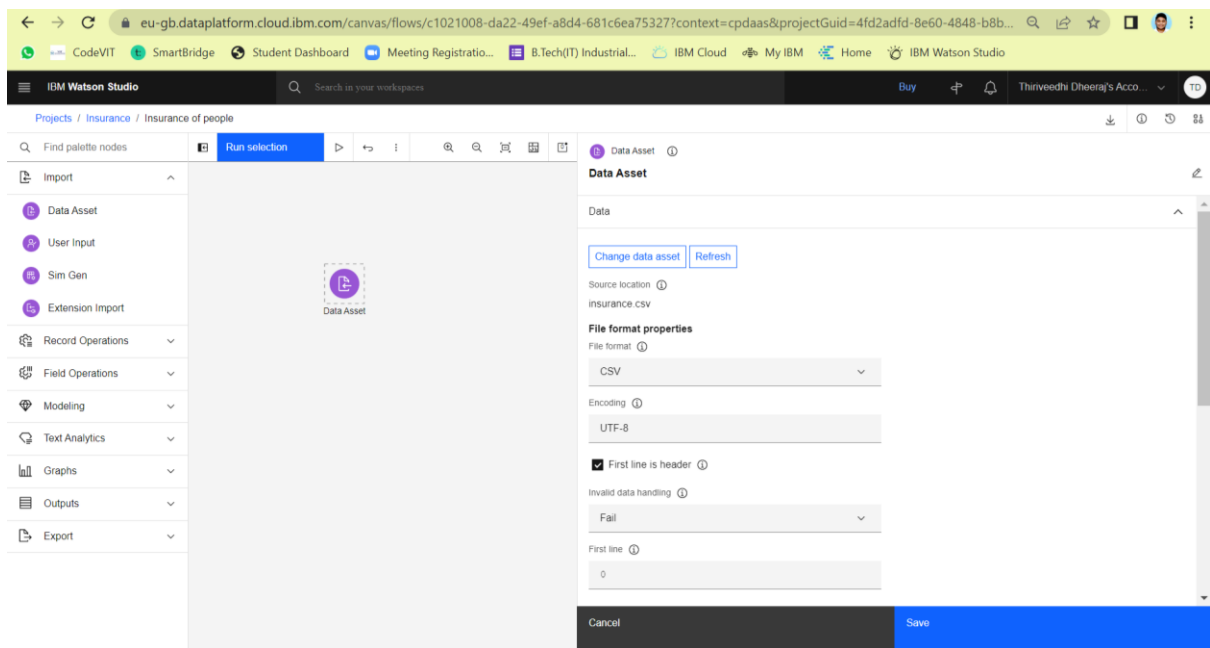
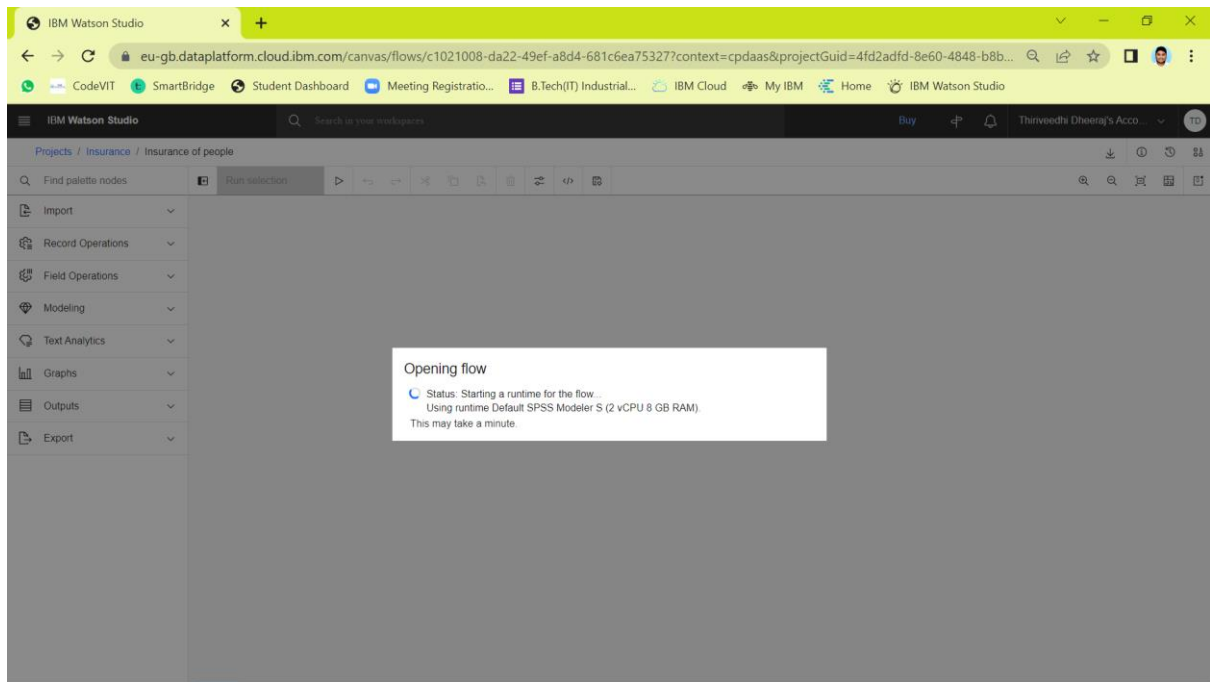
DATA REFINERY FLOW OUTPUT  
Location  
Insurance/Data assets











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Data Asset

7 Fields

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Auto Data Prep Type Filter Derive Filler Reclassify Binning RFM Analysis Ensemble Partition SetToFlag Restructure

Data Asset

Type

7 Fields

Type

Settings

Read values Clear values

Find in column Field

| Field      | Measure     | Role   | Value mode | Values |
|------------|-------------|--------|------------|--------|
| # age      | Continuous  | Input  | Read       |        |
| sex        | Categorical | Input  | Read       |        |
| bmi        | Continuous  | Input  | Read       |        |
| # children | Continuous  | Input  | Read       |        |
| smoker     | Categorical | Target | Read       |        |
| region     | Categorical | Input  | Read       |        |
| premium    | Continuous  | Input  | Read       |        |

Default mode

☒ Read metadata ☐ Pass (do not scan)

Set unique fields to None

Set categorical fields to None if they exceed this many values Set continuous integer field to ordinal if range less than or equal to

Cancel Save



eu-gb.dataplatform.cloud.ibm.com/canvas/flows/c1021008-da22-49ef-a8d4-681c6ea75327?context=cpdaas&projectGuid=4fd2adfd-8e60-4848-b8b...

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Import Record Operations Field Operations

Auto Data Prep Type Filter Derive Filler Reclassify Binning RFM Analysis Ensemble Partition SetToFlag Restructure

Data Asset → Type → Partition

7 Fields

Partition

Settings

Derived Field Name Partition

Training Partition(%) 80

Testing Partition(%) 20

Create validation partition

Repeatable partition assignment

Seed 1234567

Use unique field to assign partitions

Annotations

Cancel Save

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Data Asset → Type → Partition

7 Fields

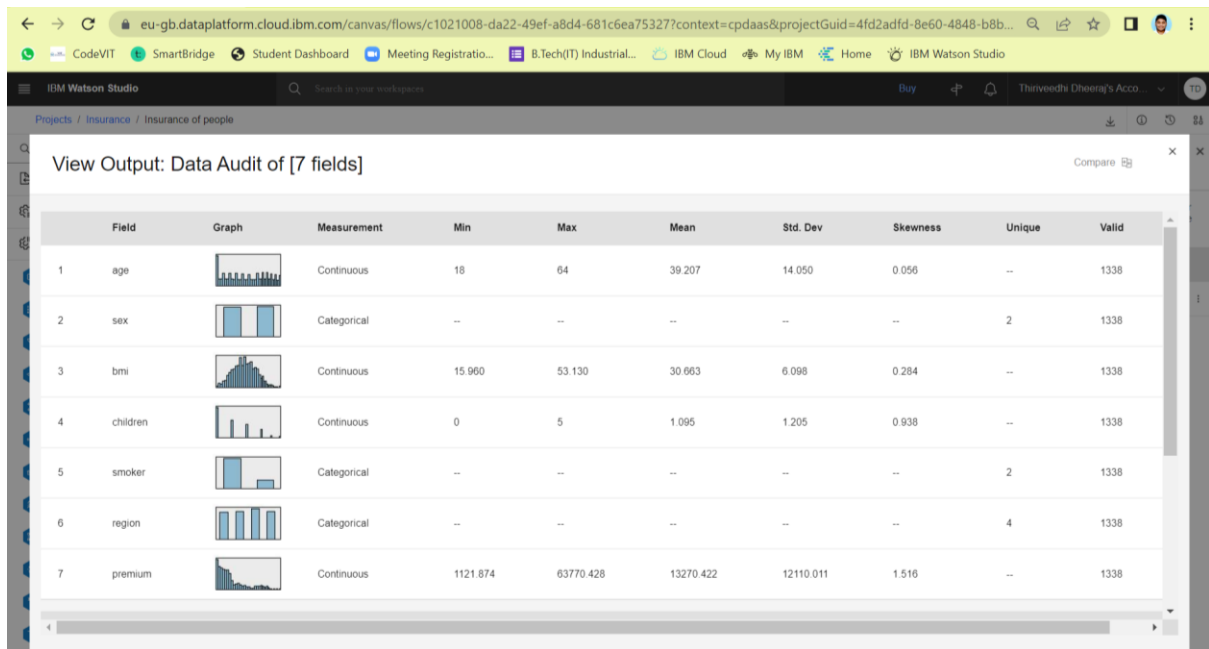
Partition

Outputs Models

Outputs are available during your SPSS Modeler session. After your session ends, the outputs are no longer available.

All results

Data Audit of [7 fields] Just now



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### View Output: Data Audit of [7 fields]

|   |         |  |             |          |           |           |           |       |    |      |
|---|---------|--|-------------|----------|-----------|-----------|-----------|-------|----|------|
| 6 | region  |  | Categorical | --       | --        | --        | --        | --    | 4  | 1338 |
| 7 | premium |  | Continuous  | 1121.874 | 63770.428 | 13270.422 | 12110.011 | 1.516 | -- | 1338 |

|   | Field    | Measurement | Outliers | Extremes | Action | Impute Missing | Method | % Complete | Valid Records | Null Value | Empty String | White Space | Blank Value |
|---|----------|-------------|----------|----------|--------|----------------|--------|------------|---------------|------------|--------------|-------------|-------------|
| 1 | age      | Continuous  | 0        | 0        | None   | Never          | Fixed  | 100.000    | 1338          | 0          | 0            | 0           | 0           |
| 2 | sex      | Categorical | --       | --       | --     | Never          | Fixed  | 100.000    | 1338          | 0          | 0            | 0           | 0           |
| 3 | bmi      | Continuous  | 4        | 0        | None   | Never          | Fixed  | 100.000    | 1338          | 0          | 0            | 0           | 0           |
| 4 | children | Continuous  | 18       | 0        | None   | Never          | Fixed  | 100.000    | 1338          | 0          | 0            | 0           | 0           |
| 5 | smoker   | Categorical | --       | --       | --     | Never          | Fixed  | 100.000    | 1338          | 0          | 0            | 0           | 0           |
| 6 | region   | Categorical | --       | --       | --     | Never          | Fixed  | 100.000    | 1338          | 0          | 0            | 0           | 0           |
| 7 | premium  | Continuous  | 7        | 0        | None   | Never          | Fixed  | 100.000    | 1338          | 0          | 0            | 0           | 0           |

eu-gb.dataplatform.cloud.ibm.com/canvas/flows/c1021008-da22-49ef-a8d4-681c6ea75327?context=cpdaas&projectGuid=4fd2adfd-8e60-4848-b8b...

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Auto Classifier Auto Numeric Auto Cluster Bayes Net C5.0 C&R Tree CHAID Quest Tree-AS Random Trees Random Forest

Data Asset Type Partition

7 Fields

smoker

smoker

Outputs Models

Outputs are available during your SPSS Modeler session. After your session ends, the outputs are no longer available.

All results

Data Audit of [7 fields] 4 minutes ago

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View Model: smoker

Auto Classifier Models

TARGET : SMOKER

| USE                                 | MODEL NAME                            | ESTIMATOR          | BUILD TIME (MINS) | NO. FIELDS USED | ACCURACY | ACCUMULATED ACCURACY | AREA UNDER CURVE | ACCUMULATED AUC | RECALL | PRECISION | ACTIONS                  |
|-------------------------------------|---------------------------------------|--------------------|-------------------|-----------------|----------|----------------------|------------------|-----------------|--------|-----------|--------------------------|
| <input checked="" type="checkbox"/> | <a href="#">Logistic regression.1</a> | Nominal Regression | <1                | 6               | 94.796   | 94.796               | 0.987            | 0.987           | 0.880  | 0.846     | <a href="#">Download</a> |
| <input checked="" type="checkbox"/> | <a href="#">LSVM.1</a>                | Linear SVM         | <1                | 6               | 95.911   | 95.911               | 0.987            | 0.987           | 0.960  | 0.842     | <a href="#">Download</a> |
| <input checked="" type="checkbox"/> | <a href="#">Discriminant.1</a>        | Discriminant       | <1                | 4               | 95.539   | 95.539               | 0.986            | 0.986           | 1.000  | 0.806     | <a href="#">Download</a> |
| <input checked="" type="checkbox"/> | <a href="#">Decision List.1</a>       | Decision List      | <1                | 3               | 90.335   | 90.335               | 0.973            | 0.973           | 1.000  | 0.658     | <a href="#">Download</a> |
| <input checked="" type="checkbox"/> | <a href="#">C5.1</a>                  | C5.0               | <1                | 4               | 95.911   | 95.911               | 0.989            | 0.989           | 0.980  | 0.831     | <a href="#">Download</a> |

Thank you