

Government Of Madhya Pradesh A- A A+ f t v

CM HELPLINE 181 जन हेतु - जन सेतु 181

सी.एम. हेल्पलाइन

• अधिकारी लॉगिन • आर.टी.आई • संपर्क • रिपोर्ट • मोबाइल एप

शासन और नागरिकों के बीच
सिर्फ एक कॉल का फासला
सुशासन की दिशा में निरंतर बढ़ते कदम

सीएम हेल्पलाइन 181 जन हेतु - जन सेतु

कुल शिकायतों का विलरण

कुल दर्ज शिकायतें 14479014

कुल निराकृत शिकायतें 14144507

योजनाएं

शिकायत / मांग सुझाव दर्ज कर

उच्च प्रदर्शन वाले अधिकारी

बा.म.श्री संजय श्रीवास्तव
पद.जिला परिवहन अधिकारी

Let's Chat

Microsoft Azure - Machine Learning Process flow

For

Forecasting Resolution Days of CM Helpline Complaints

Prepared by:



MP State Agency for Public Services

1. Problem Statement







CM Helpline – a call center (Toll Free '181') which acts as a bridge between Citizens and Government, helps to lodge grievances and get timely resolution. A citizen can lodge grievance if he/she is facing any problem and need resolution from Government/ State Departments.

While most of the complaints (for e.g. Complaints of Water logging are at high during rainy season, non-timely payment to farmers during procurement season etc.) are seasonal in nature and can be predicted based on past trend, some of the complaints are spontaneous and thus, cannot be predicted beforehand.

An exercise has been conducted in MS Azure which helps us to find out resolution days of any CM Helpline Complaint.

2. Data Source:

CM Helpline database (Fields: Date, Attribute, average resolution days)

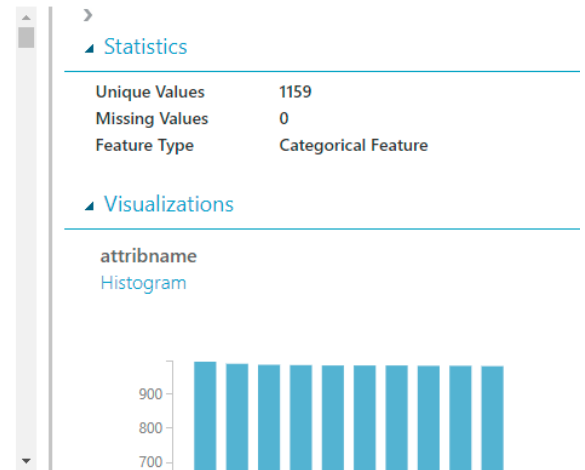
rows	columns	CompDate	attribname	Avg_Resolution_Days	Month	Year
317056	5					
view as						
		01/01/2018 00:00	विभाग के अधिकारियों / कर्मचारियों के स्थापना/अनुकम्पा/ पेंशन संबंधी प्रकरण (महिला एवं बाल विकास विभाग)	192	1	2018
		02/01/2018 00:00	विभाग के अधिकारियों / कर्मचारियों के स्थापना/अनुकम्पा/ पेंशन संबंधी प्रकरण (महिला एवं बाल विकास विभाग)	154	1	2018

3. Data Manipulation (if any):

Converted 'Attributes' from 'String' to 'Categorical' variable

rows 317056
columns 4

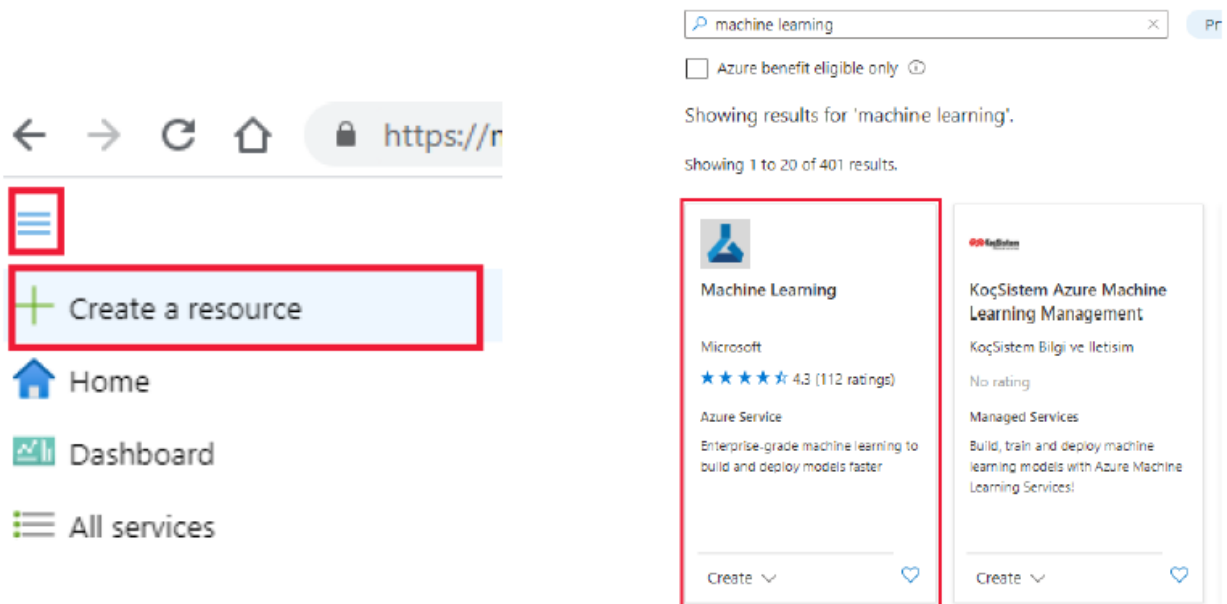
attribname	Avg_Resolution_Days	Month	Year
विभाग के अधिकारियों / कर्मचारियों के स्थापना/ अनुकम्पा/पेंशन संबंधी प्रकरण (महिला एवं बाल विकास विभाग)	192	1	2018
विभाग के अधिकारियों / कर्मचारियों के स्थापना/ अनुकम्पा/पेंशन संबंधी प्रकरण (महिला एवं बाल विकास विभाग)	154	1	2018
विभाग के अधिकारियों / कर्मचारियों के स्थापना/ अनुकम्पा/पेंशन संबंधी प्रकरण (महिला एवं बाल विकास विभाग)	104	1	2018



4. Process Work Flow

4.1 CREATE A WORKSPACE

1. Sign into the Azure Portal using your Microsoft credentials.
2. Select **+ Create** a resource, search for Machine Learning, and create a new Machine Learning resource.



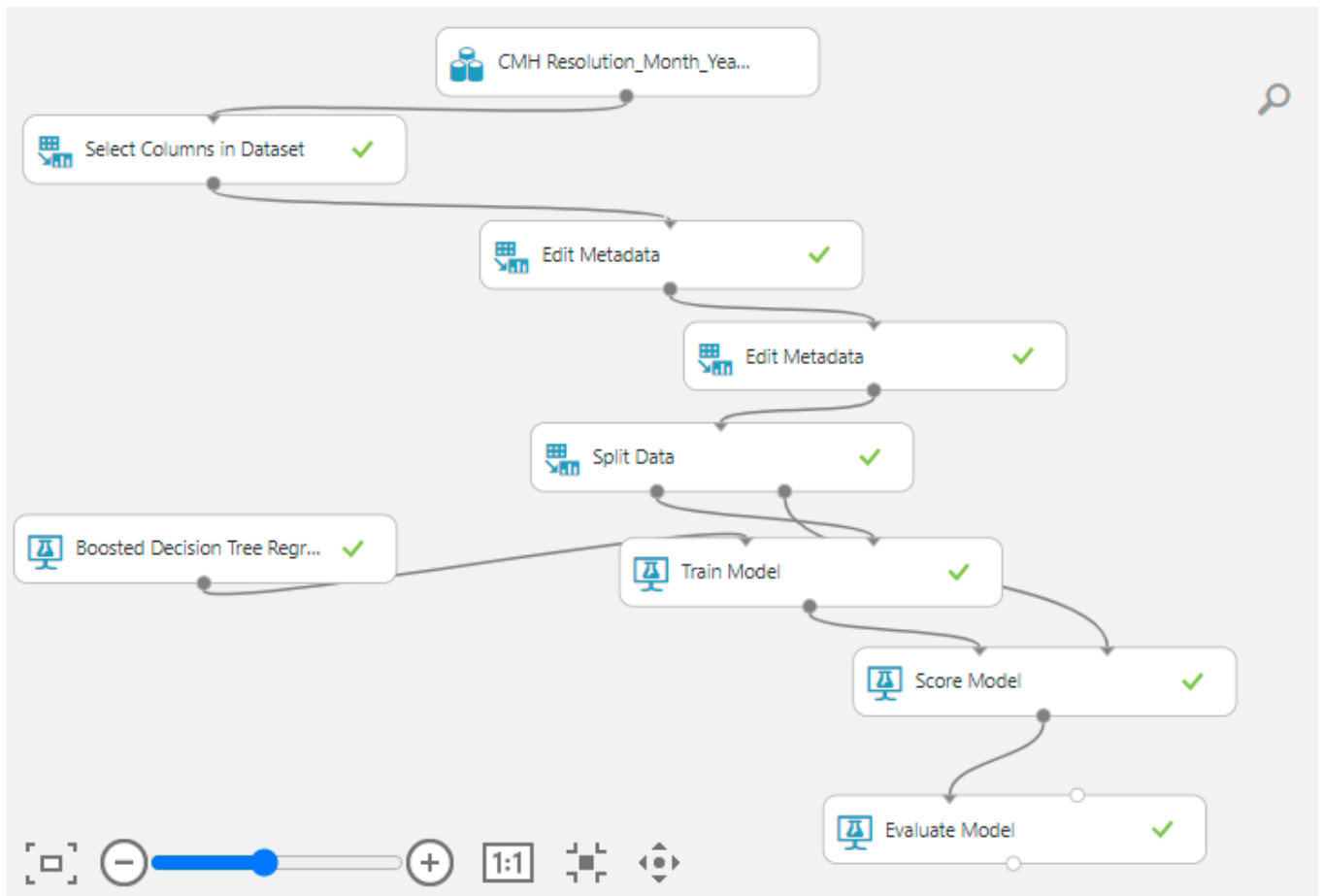
3. After configuring the Workspace, select Review + Create.
4. Select Create, to create Workspace.
5. To view new Workspace, select Go to Resource.
6. From Portal view of Workspace, Select Launch Studio to go to the Azure ML Studio.

4.2 CREATE COMPUTE RESOURCES:

1. Create Compute Targets: On the Compute Instances tab, add a new compute instance:
2. Virtual Machine type: CPU
3. Virtual Machine size: Standard_DS11_v2 (Choose Select from all options to search for and select this machine size)
4. Compute name: cmhelpline1
5. SSH access: Unselected
6. While the compute instance is being created, switch to the Compute Clusters tab, and add a new compute cluster.

5. Machine Learning Algorithm used

Boosted decision tree regression



6. Achievement/ Result

Metrics

Mean Absolute Error	57.701724
Root Mean Squared Error	95.822203
Relative Absolute Error	0.78988
Relative Squared Error	0.677886
Coefficient of Determination	0.322114

7. Model Deployment

The model may be deployed on CM Helpline portal for officers, citizens to predict no. of resolution days on the basis on complaint date and attribute.

input1	output1
CompDate	2018-01-01
attribname	विभाग के अधिकारियों /कर्मचारीयों के स्थापना/ अनुकम्पा/पेंशन संबंधी प्रकरण (महिला एवं बाल विकास विभाग)
Avg_Resolution_Days	128
Month	1
Year	2018
Test Request-Response	
	Predicted Resolution Days