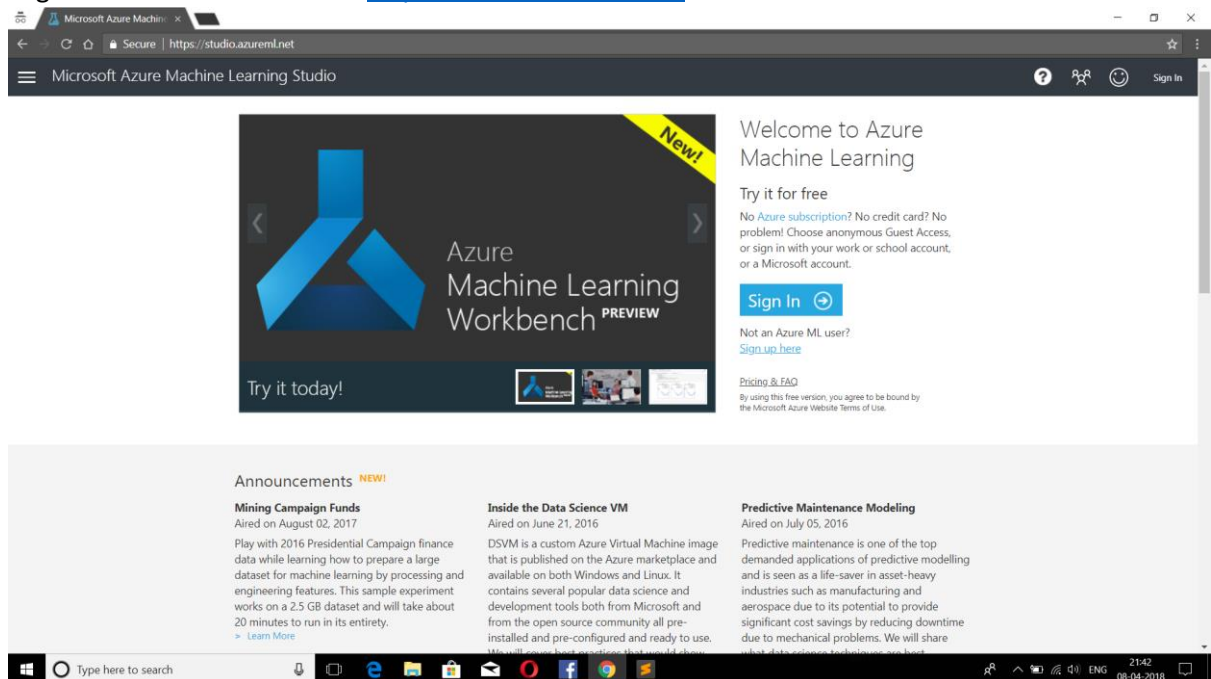


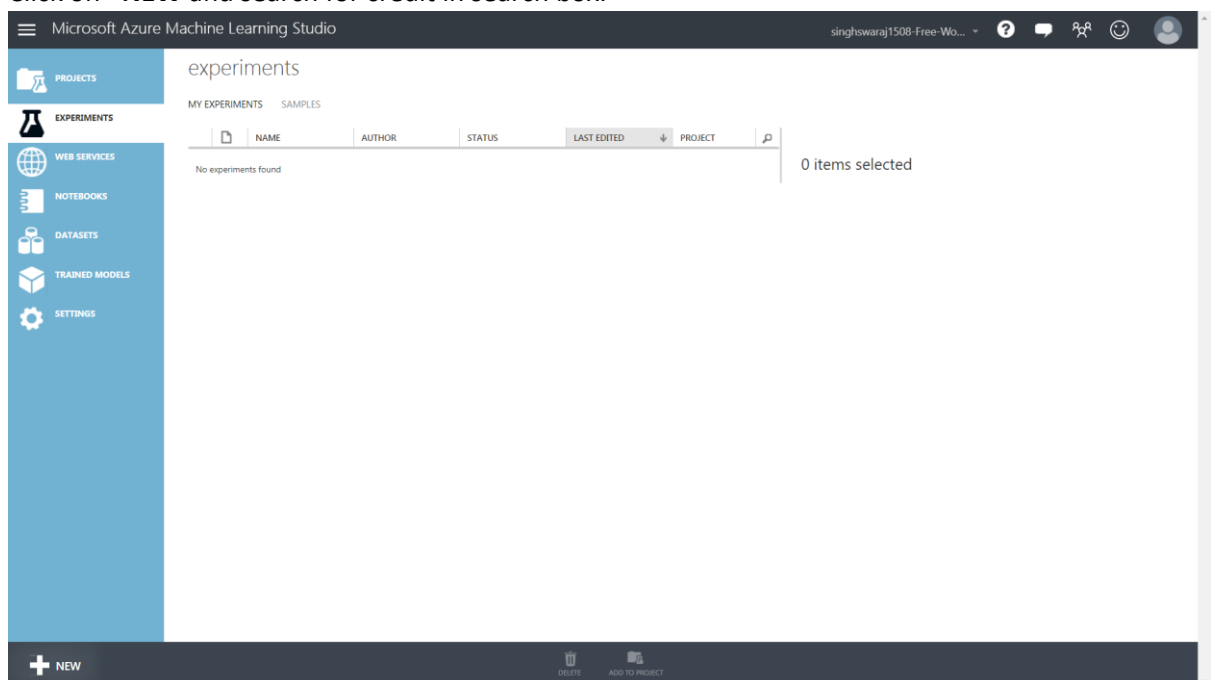
HANDSON Azure Machine Learning Studio

Running a simple Income Experiment Stepwise on Azure Machine Learning Tool.

1. Log into the Azure ML Studio: <https://studio.azureml.net> .



2. Click on **Sign In** and enter your credentials.
3. Click on **+NEW** and search for credit in search box.



4. Open the **Blank Experiment** in the Studio.
5. Change the Experiment Name to **Income Experiment**.
6. For now, taking some sample data in for experiment Select **Adult Census Income Binary Classification datasheet. Census Income Datasheet**

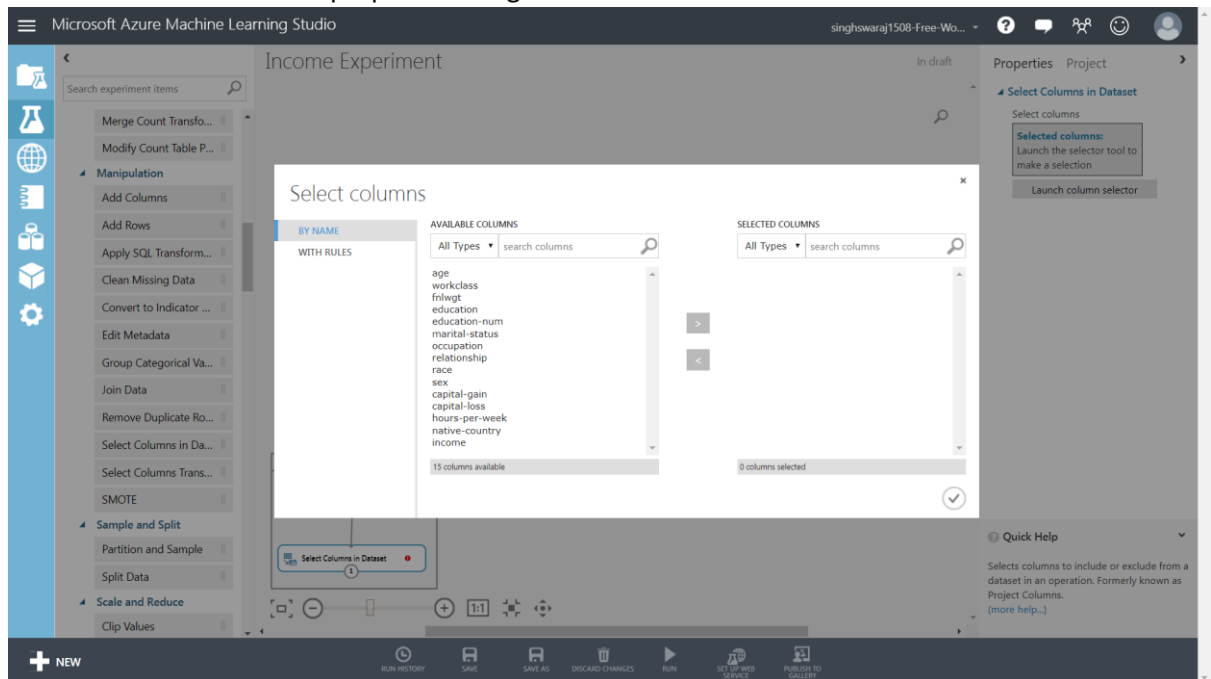
7. Since we do not need all the data provided by the Sample Dataset hence, Manipulation of the data is required select **Data Transformation>Manipulation>Select Columns in Datasheet**

The image displays two screenshots of the Microsoft Azure Machine Learning Studio interface, illustrating the process of selecting columns in a dataset.

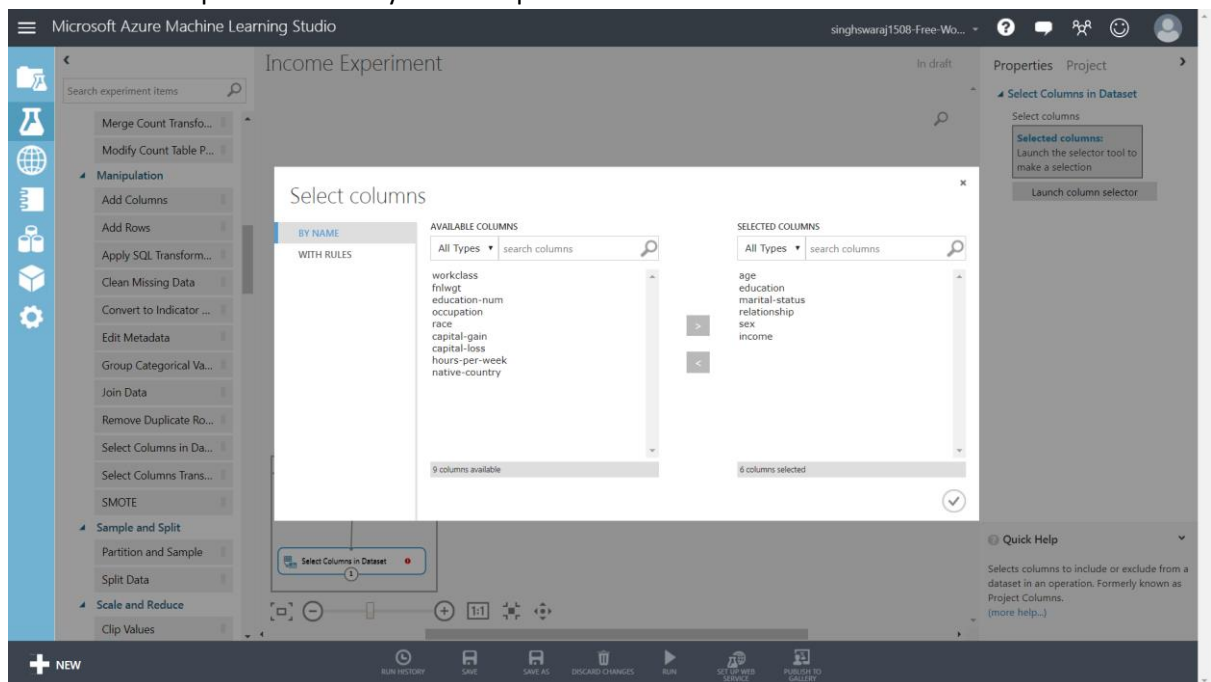
Top Screenshot: The interface shows the "Income Experiment" workspace. The left sidebar lists the "Data Transformation" section, with "Manipulation" expanded. The "Select Columns in Datasheet" option is highlighted. The main workspace shows a "Mini Map" of the experiment flow, which includes a dataset node labeled "Adult Census Income Binary..." and a "Select Columns in Datasheet" node. The right sidebar shows the "Properties" pane for the "Adult Census Income Binary..." dataset, displaying details such as "SUBMITTED BY: Microsoft C...", "SIZE: 3.82 MB", "FORMAT: GenericCSV", and "CREATED ON: 4/9/2015 3:...".

Bottom Screenshot: The interface shows the "Income Experiment" workspace. The left sidebar lists the "Data Transformation" section, with "Manipulation" expanded. The "Select Columns in Datasheet" option is highlighted. The main workspace shows a "Mini Map" of the experiment flow, which includes a dataset node labeled "Adult Census Income Binary..." and a "Select Columns in Datasheet" node. The right sidebar shows the "Properties" pane for the "Select Columns in Datasheet" node, displaying details such as "Selected columns: Launch the selector tool to make a selection" and "Launch column selector".

8. Now connecting **Census income datasheet** to this **Select Columns in Datasheet** and launch **Column Selector** From the properties in right hand side

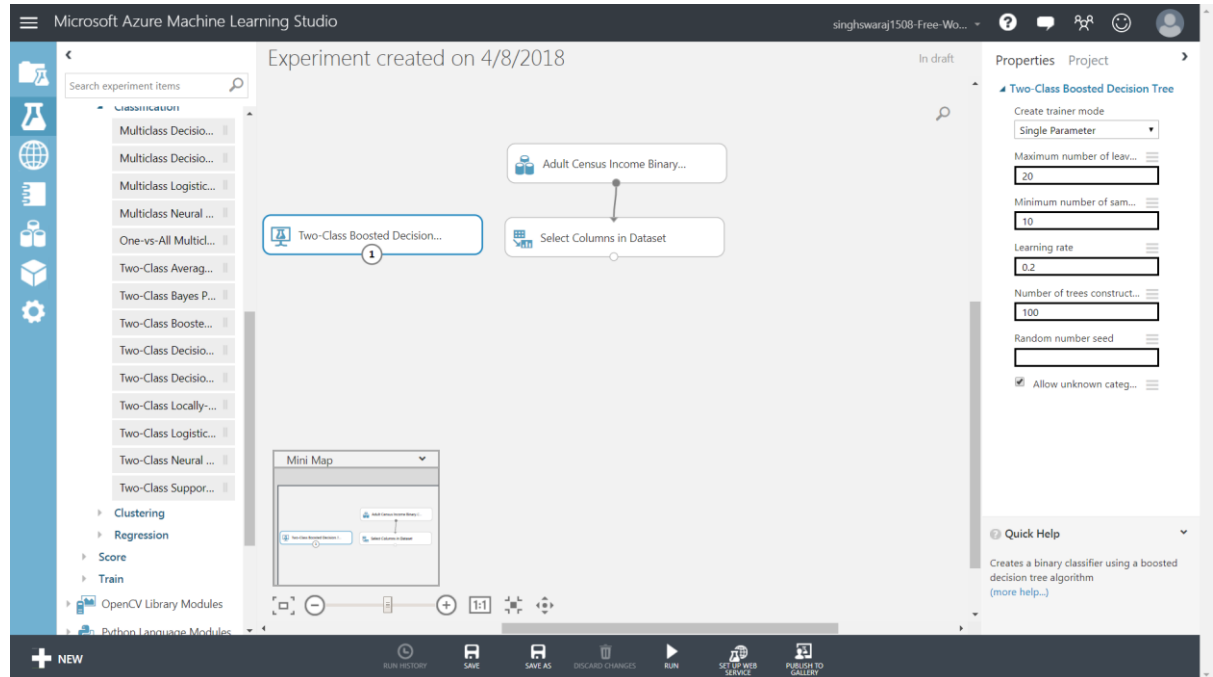


9. Select all the required Columns you are required to work with

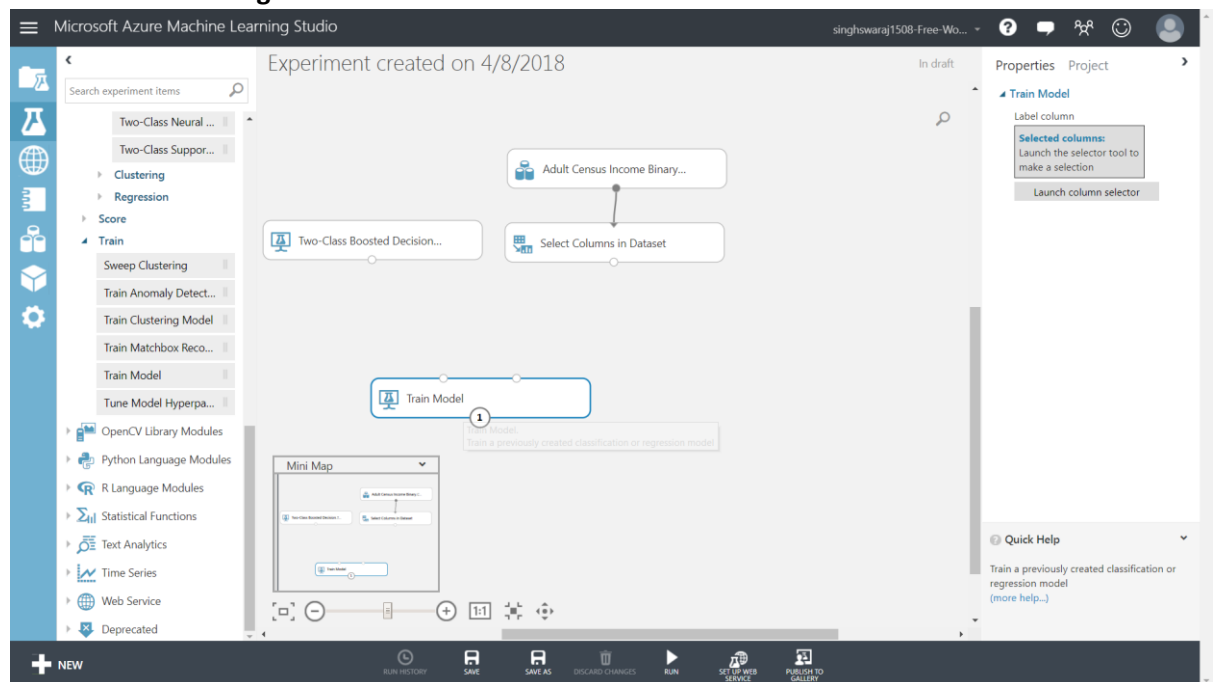


10. Once done we Now need the Machine Learning Algorithm for our experiment So , from the selection menu on the left side, select **Machine Learning> Initialize Model> Classification>**

Two-Class Boosted Decision Tree and drag and place it on one side.



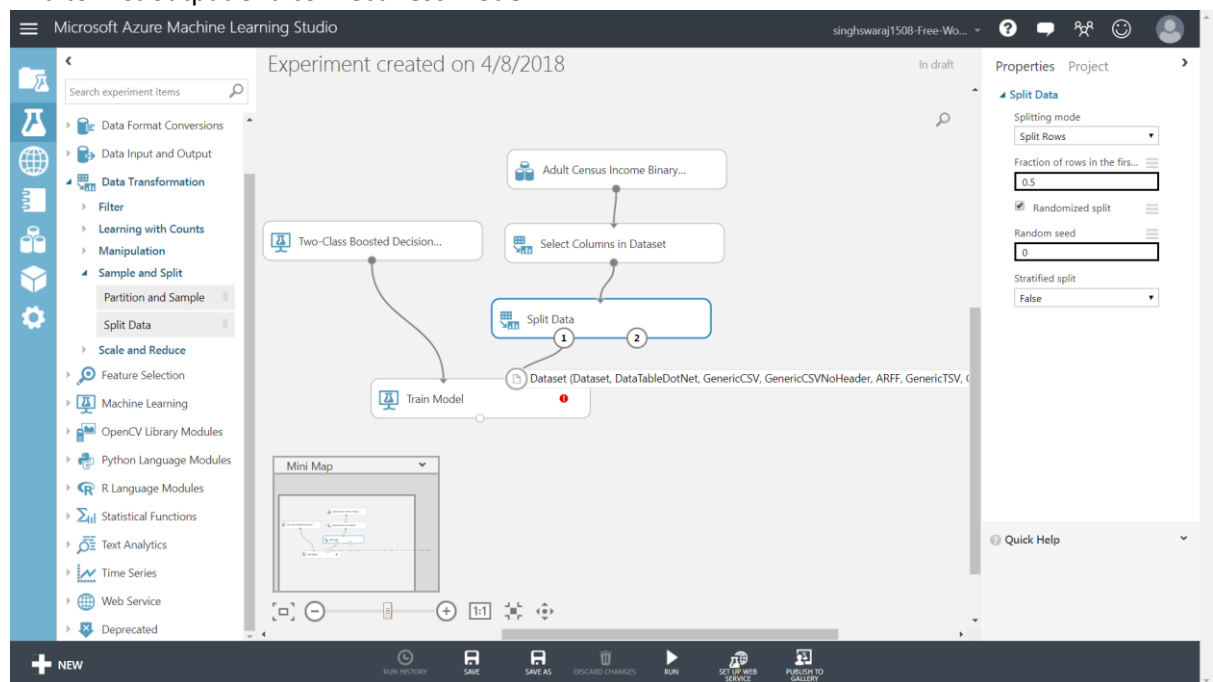
11. Now this model needs to be trained so selecting a trainer from the machine learning Section
I.e. **Machine Learning > Train > Train model**



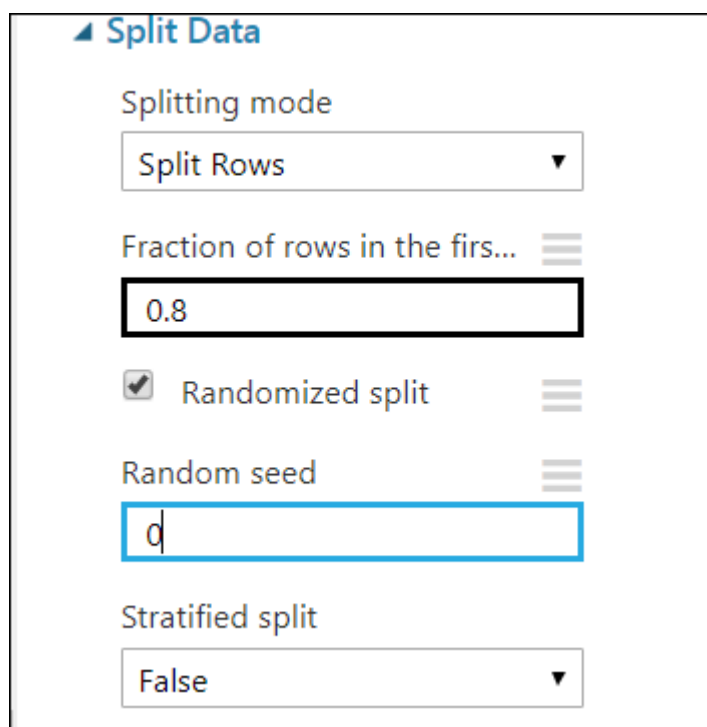
12. Now connecting **Two class Boosted Decision tree** to the **Training Model**.
13. To Feed the data in training we need to input some data in this algorithm so the idea here is to split the data in two parts
 - a. Train Data
 - b. Test Data

In order to do that we select Drag and Drop **Data transformation> Split and Sample>Split Data**

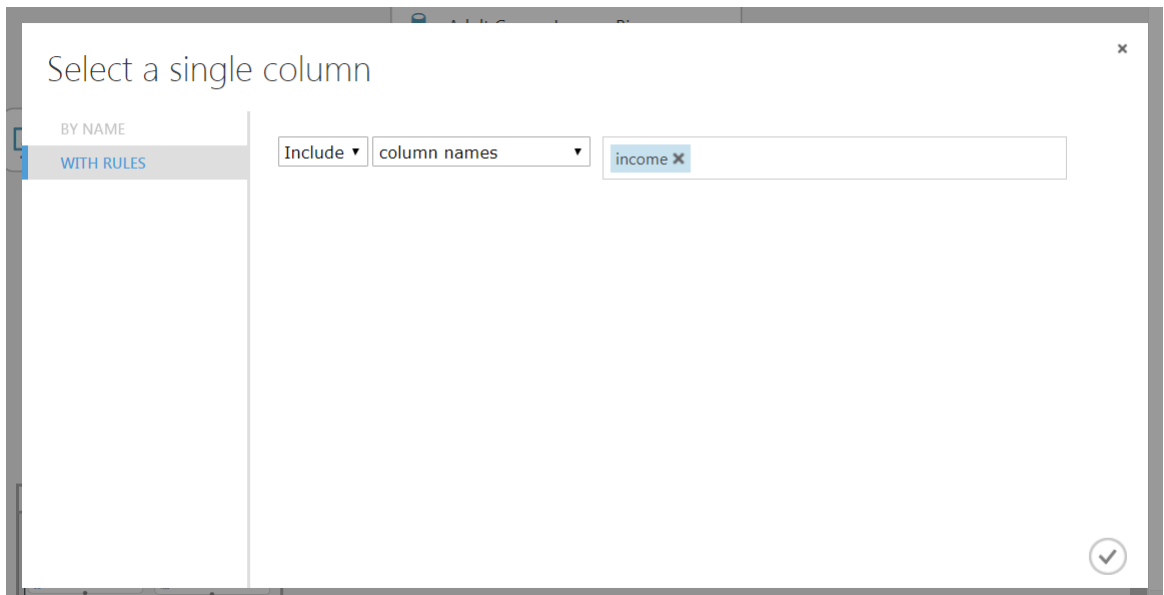
14. Now making connections in **Split Data** to input end connect **Select Columns in Datasheet**,
And to first output end connect **Test Model**



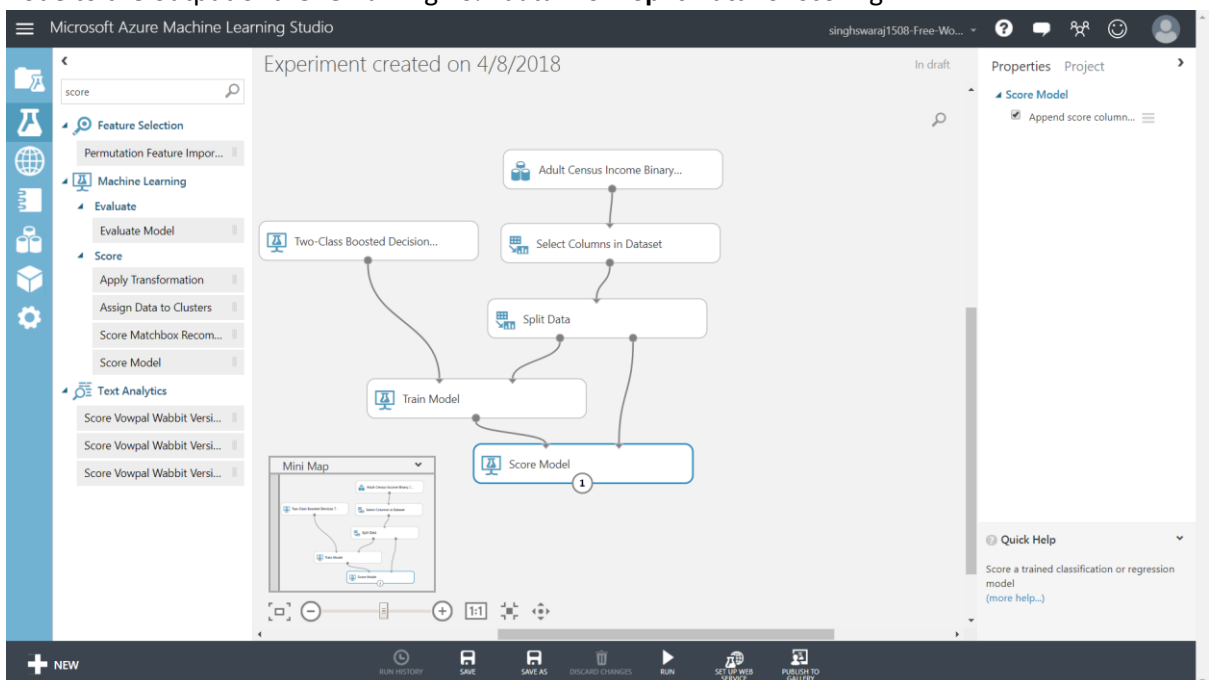
15. Make the following arrangement so that **80%** data is feed into the Train Model as Train Data



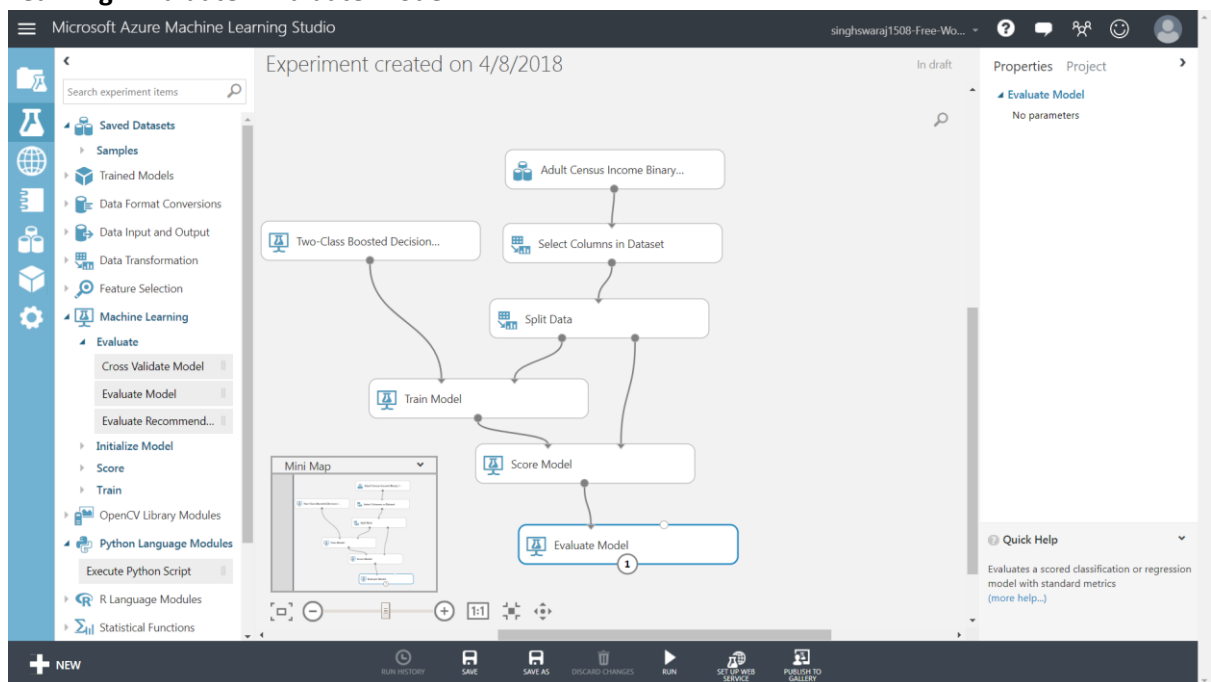
16. Now we need to tell the Train Model what field is to be trained so Launching Column
Selector And Select the Colum Income



17. After training the model we need to score the model in order to find the how well it has performed. Drag and Drop **Machine Learning > Score >Score model** .
18. Now connect the first input nodes to the output node of **Train model** and the other input node to the output of the remaining 20% data From **Split Data** for scoring.

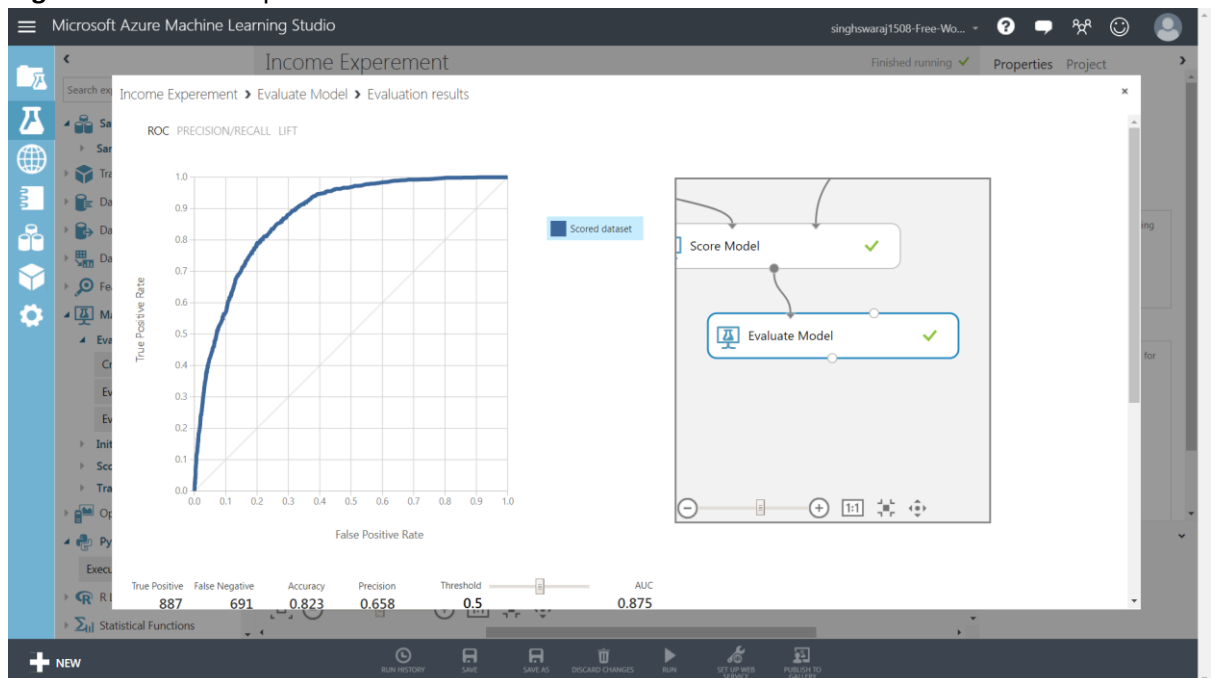


19. Now Required is a Model to Evaluate the process. Dragging and Dropping **Machine Learning> Evaluate> Evaluate Model**



Connect the output data of Score model to the Input of **Evaluate model**

20. **Save** the experiment And now we **Run** it.
21. All the models execution the that was completed is shown with a Green tick
22. **Right click** on the output node of **Evaluate model** and now click **Visualize**.



23. Here you will find all the graphical representation of The Experiment that was Performed.