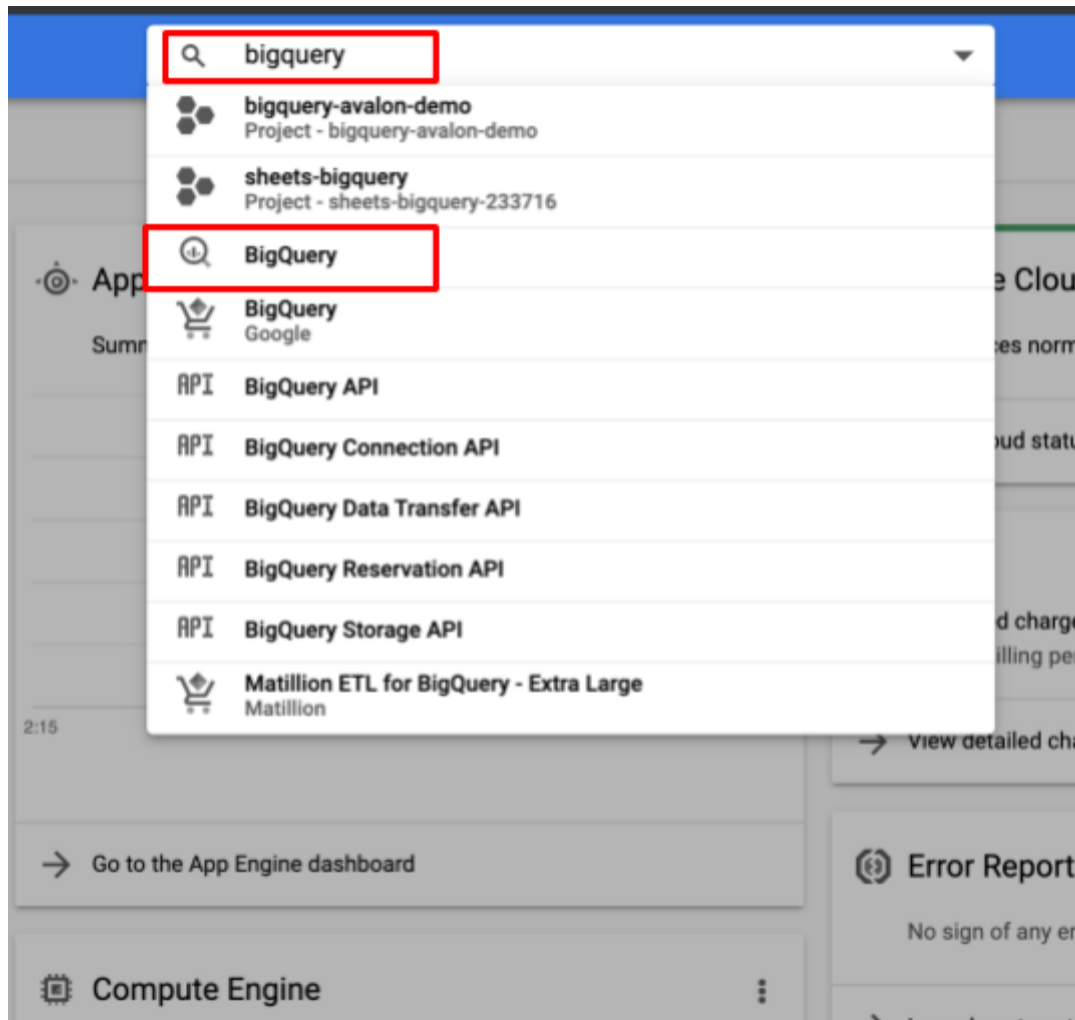


## Part 3

Let's create a model using AutoML tables. To see insights in tables. First of all, we have to check what data do we have.

1. Open Google Cloud Console: <https://console.cloud.google.com>
2. In search bar type BigQuery and click on BigQuery service:



3. Select table:

Query history

Unsaved query Edited

1

Saved queries

Job history

Transfers

Scheduled queries

BI Engine

Resources + ADD DATA ▼

Search for your tables and datasets ?

gdgwaw1

automidemo

bankmarketing

appmaker-db

avalon-platform-demo

bigquery-public-data

listenbrainz

Run Save query Save view

bankmarketing

Schema Details Preview

Field name	Type	Mode
Age	INTEGER	NULLABLE
Job	STRING	NULLABLE
MaritalStatus	STRING	NULLABLE

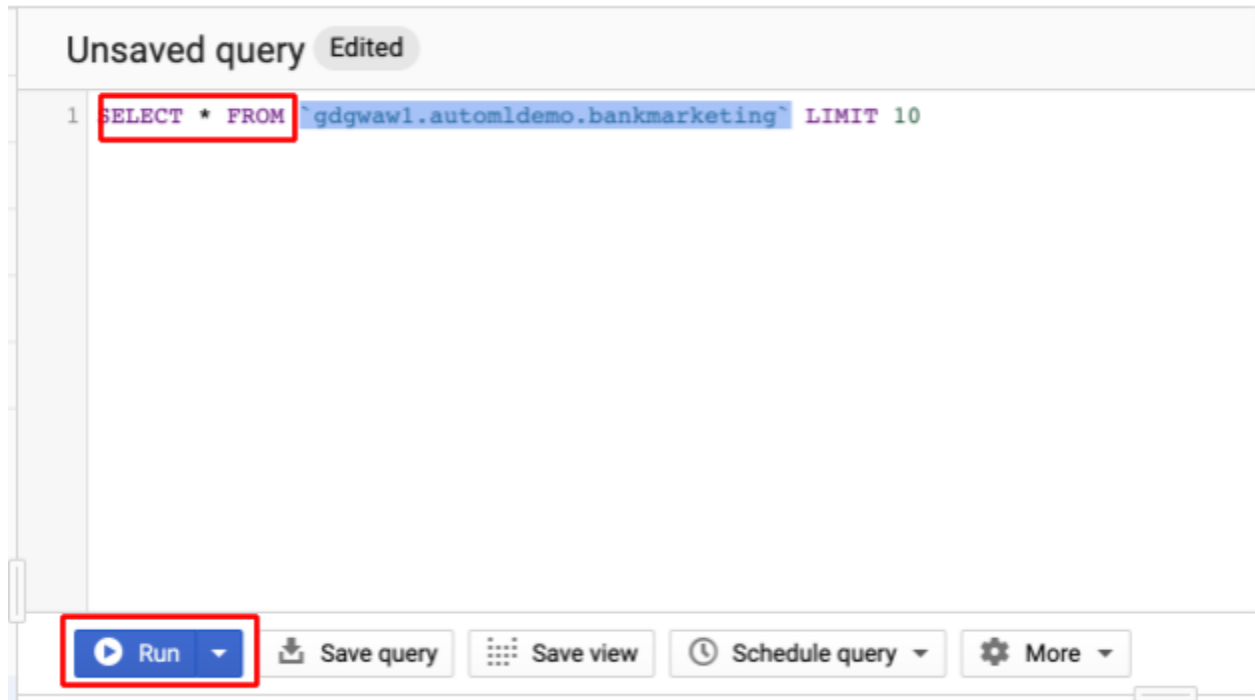
4. Next check what is in this table by clicking QUERY TABLE:

More

This query will process 5.2 MB when r

QUERY TABLE COPY TABLE DELETE TABLE EXP

5. And adjust SQL query adding \*(star):



Let's create ML model:

1. Go to AI Tables and click Datasets:

Data Labeling >

AI Platform >

Natural Language >

Recommendations AI >

**Tables** >

- Datasets
- Models

Talent Solution >

Translation >

Vision >

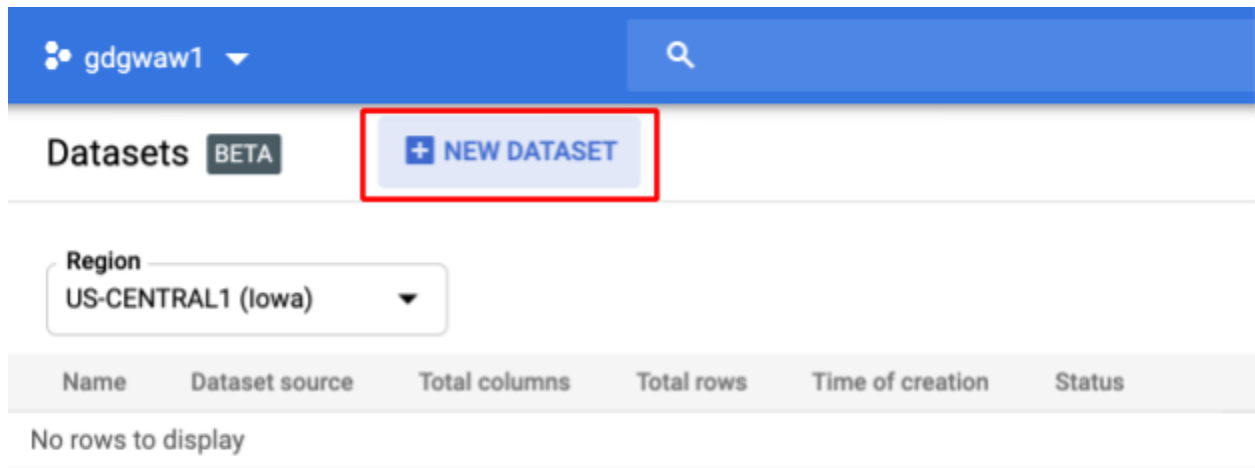
**Query results** [SAVE RESULTS](#)

Query complete (0.6 sec elapsed, 5.2 MB processed)

Job Information Results JSON Execution details

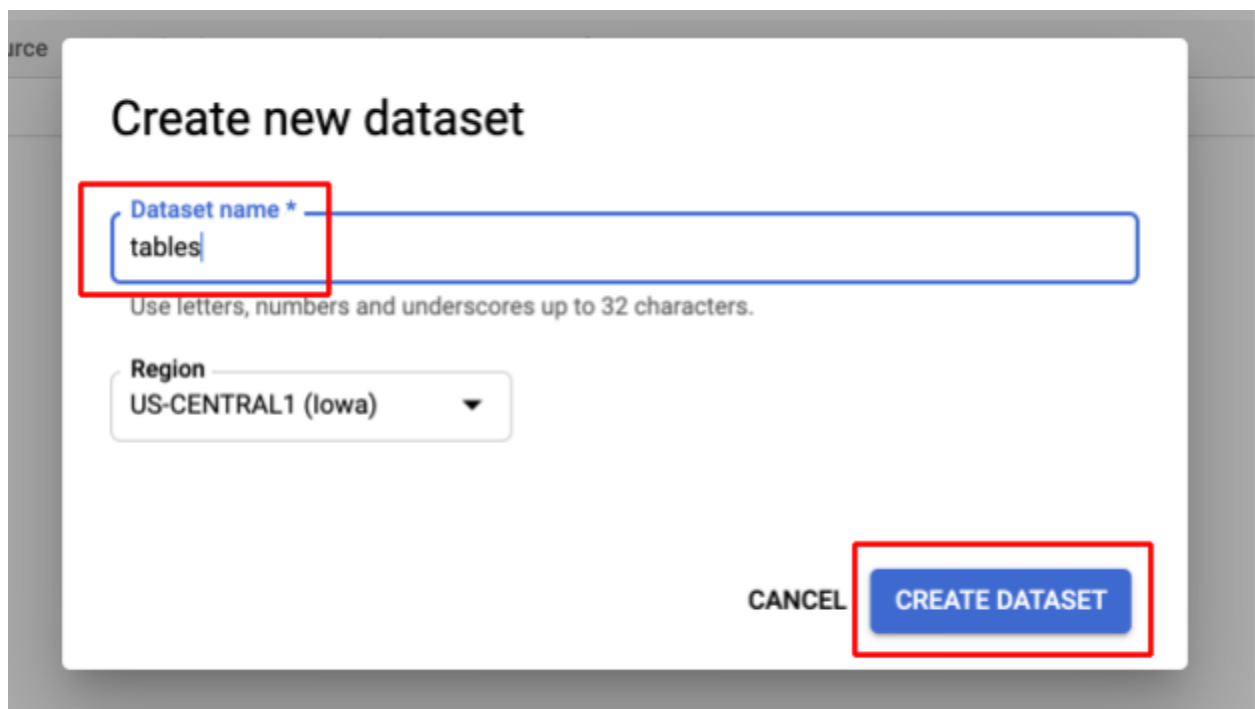
Row	Age	Job	MaritalStatus	Education	Default
1	42	admin.	single	secondary	false
2	46	admin.	married	secondary	false
3	44	admin.	married	secondary	false
4	48	admin.	married	secondary	false
5	46	admin.	married	secondary	false
6	39	admin.	single	tertiary	false
7	33	admin.	divorced	secondary	false

2. Click NEW DATASET



The screenshot shows the Google Cloud Platform 'Datasets' interface. At the top, there's a blue header with the user 'gdgwaw1' and a search icon. Below the header, the word 'Datasets' is followed by a 'BETA' badge. A red box highlights the '+ NEW DATASET' button. Below this, there's a 'Region' dropdown menu set to 'US-CENTRAL1 (Iowa)'. A table with columns 'Name', 'Dataset source', 'Total columns', 'Total rows', 'Time of creation', and 'Status' is shown, with the message 'No rows to display' below it.

3. Name it as **tables** and click CREATE DATASET



The screenshot shows the 'Create new dataset' dialog box. The title is 'Create new dataset'. There's a text input field labeled 'Dataset name \*' with the word 'tables' entered. A red box highlights this field. Below the field, there's a note: 'Use letters, numbers and underscores up to 32 characters.' Below this, there's a 'Region' dropdown menu set to 'US-CENTRAL1 (Iowa)'. At the bottom right, there are two buttons: 'CANCEL' and 'CREATE DATASET'. The 'CREATE DATASET' button is highlighted with a red box.

4. Fill BigQuery Project ID as your **PROJECT\_ID**, dataset ID: **automldemo**, table or View ID: **bankmarketing**, and click IMPORT:

The screenshot shows the 'IMPORT' tab of the Google Cloud AI Platform interface. At the top, there are five tabs: 'IMPORT' (selected), 'TRAIN', 'MODELS', 'EVALUATE', and 'TEST & USE'. Below the tabs, a message states: 'Your dataset must contain at least one input feature column and a target column. Optional columns can be added to configure parameters like the data split, weights, etc. [Preparing your training data](#)'. There are three radio button options: 'Import data from BigQuery' (selected), 'Select a CSV file from Cloud Storage', and 'Upload files from your computer'. Under the 'Import data from BigQuery' section, a note says 'The table or view from BigQuery must be in the US regional location'. Three text input fields are shown, each with a red rectangular highlight: 'BigQuery Project ID \*' with the value 'gdgwaw1', 'BigQuery Dataset ID \*' with the value 'automldemo', and 'BigQuery Table or View ID \*' with the value 'bankmarketing'. At the bottom left, there is a blue 'IMPORT' button, also highlighted with a red rectangle.

IMPORT TRAIN MODELS EVALUATE TEST & USE

Your dataset must contain at least one input feature column and a target column. Optional columns can be added to configure parameters like the data split, weights, etc. [Preparing your training data](#)

☒ Import data from BigQuery  
☐ Select a CSV file from Cloud Storage  
☐ Upload files from your computer

**Import data from BigQuery**

The table or view from BigQuery must be in the US regional location

BigQuery Project ID \*  
gdgwaw1

BigQuery Dataset ID \*  
automldemo

BigQuery Table or View ID \*  
bankmarketing

IMPORT

5. Choose Deposit as TARGET and click TRAIN MODEL:

## TEST & USE

### Target column

Select a column to be the target (what you want your model to predict) and add optional parameters like weight and time columns

Deposit

The selected column is categorical data. AutoML Tables will build a classification model, which will predict the target from the classes in the selected column. [Learn more](#)

### Additional parameters:

Data split: Automatic

[EDIT ADDITIONAL PARAMETERS](#)

TRAIN MODEL

ity ?	Missing% (Count) ?	Invalid values ?	Distinct values ?	Correlation with T
Nullable	0% (0)	0% (0)	77	
Nullable	0% (0)	0% (0)	7,168	
Nullable	0% (0)	0% (0)	48	
Nullable	0% (0)	0% (0)	3	

6. Type Model name: **tables**, Budget: **4**, and click TRAIN MODEL:

## Train your model

Model name \*

tables

### Training budget

Enter a number between 1 and 72 for the maximum number of node hours to spend training your model. If your model stops improving before then, AutoML Tables will stop training and you'll only be charged for the actual node hours used. Training budget doesn't include setup, preprocessing, and tear down. These steps usually don't exceed one hour total and you won't be charged for that time. [Training pricing guide](#)

Budget \*

4

maximum node hours



### Input feature selection

By default, all other columns in your dataset will be used as input features for training (excluding target, weight, and split columns).

16 feature columns \*

All columns selected



### Summary

Model type: Binary classification model

Data split: Automatic

Target: Deposit

TRAIN MODEL

CANCEL