CS 512
Homework Environment Configuration

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Date : 01-17-2023
Title : Analyzing Birth Rates in the United States
Problem statement : Birth rates in the US
Big Data Referenced from : https://wonder.cdc.gov/wonder/help/Natality-expanded.html

OSEMN Process

1) Obtain : Data on birth rates in the United States was obtained from Center for Disease Control (CDC).

2) Scrub : The data capture a range of maternal demographic information, but we shortened to get data for number of births by each state in US also removed null values.

3) Explore : After Scrubbing the data it is ready to use for data visualization. So here the data was analyzed to find the trends in birth rates. Here we utilized Bar chart to visualize the data.

4) Model : modelling is nothing but reducing the dimensionality of your data set so initially this data capture a range of maternal demographic information, such as state and county of residence, mother's age and race, ethnicity and country of origin, marital status So here we modeled our data large data to just get the birth rates in the USA and using this data we can model it to predict the future rates.

5) Interpret : The results were drawn about the current birth rates in united states and utilizing this data for future developments.

2)

```
Credentials saved to file: [/Users/nalubanr/.config/gcloud/application_default_credentials.json]

These credentials will be used by any library that requests Application Default Credentials (ADC).

Quota project "valiant-sandbox-374420" was added to ADC which can be used by Google client libraries for billing and quota. Note that some services may still bill the project owning the resource.
(Google_Python) nalubanr@Rahuls-MacBook-Pro project % gcloud init
Welcome! This command will take you through the configuration of gcloud.

Settings from your current configuration [default] are:
core:
  account: nalubanr@oregonstate.edu
  disable_usage_reporting: 'False'
  project: valiant-sandbox-374420

Pick configuration to use:
 [1] Re-initialize this configuration [default] with new settings
 [2] Create a new configuration
Please enter your numeric choice:  1

Your current configuration has been set to: [default]

You can skip diagnostics next time by using the following flag:
  gcloud init --skip-diagnostics

Network diagnostic detects and fixes local network connection issues.
Checking network connection...done.
Reachability Check passed.
Network diagnostic passed (1/1 checks passed).

Choose the account you would like to use to perform operations for this configuration:
 [1] nalubanr@oregonstate.edu
 [2] Log in with a new account
Please enter your numeric choice:  1

You are logged in as: [nalubanr@oregonstate.edu].

Pick cloud project to use:
 [1] valiant-sandbox-374420
 [2] Enter a project ID
 [3] Create a new project
Please enter numeric choice or text value (must exactly match list item):  1

Your current project has been set to: [valiant-sandbox-374420].

Not setting default zone/region (this feature makes it easier to use
[gcloud compute] by setting an appropriate default value for the
--zone and --region flag).
See https://cloud.google.com/compute/docs/gcloud-compute section on how to set
default compute region and zone manually. If you would like [gcloud init] to be
able to do this for you the next time you run it, make sure the
Compute Engine API is enabled for your project on the
https://console.developers.google.com/apis page.

Your Google Cloud SDK is configured and ready to use!

* Commands that require authentication will use nalubanr@oregonstate.edu by default
* Commands will reference project `valiant-sandbox-374420` by default
Run `gcloud help config` to learn how to change individual settings

This gcloud configuration is called [default]. You can create additional configurations if you work with multiple accounts and/or projects.
Run `gcloud topic configurations` to learn more.

Some things to try next:

* Run `gcloud --help` to see the Cloud Platform services you can interact with. And run `gcloud help COMMAND` to get help on any gcloud command.
* Run `gcloud topic --help` to learn about advanced features of the SDK like arg files and output formatting
* Run `gcloud cheat-sheet` to see a roster of go-to `gcloud` commands.
(Google_Python) nalubanr@Rahuls-MacBook-Pro project % python main.py
Running Python 3
Connected to the bigquery client.
Found empty value, skipping it
Generating bar chart
(Google_Python) nalubanr@Rahuls-MacBook-Pro project %
```

3)

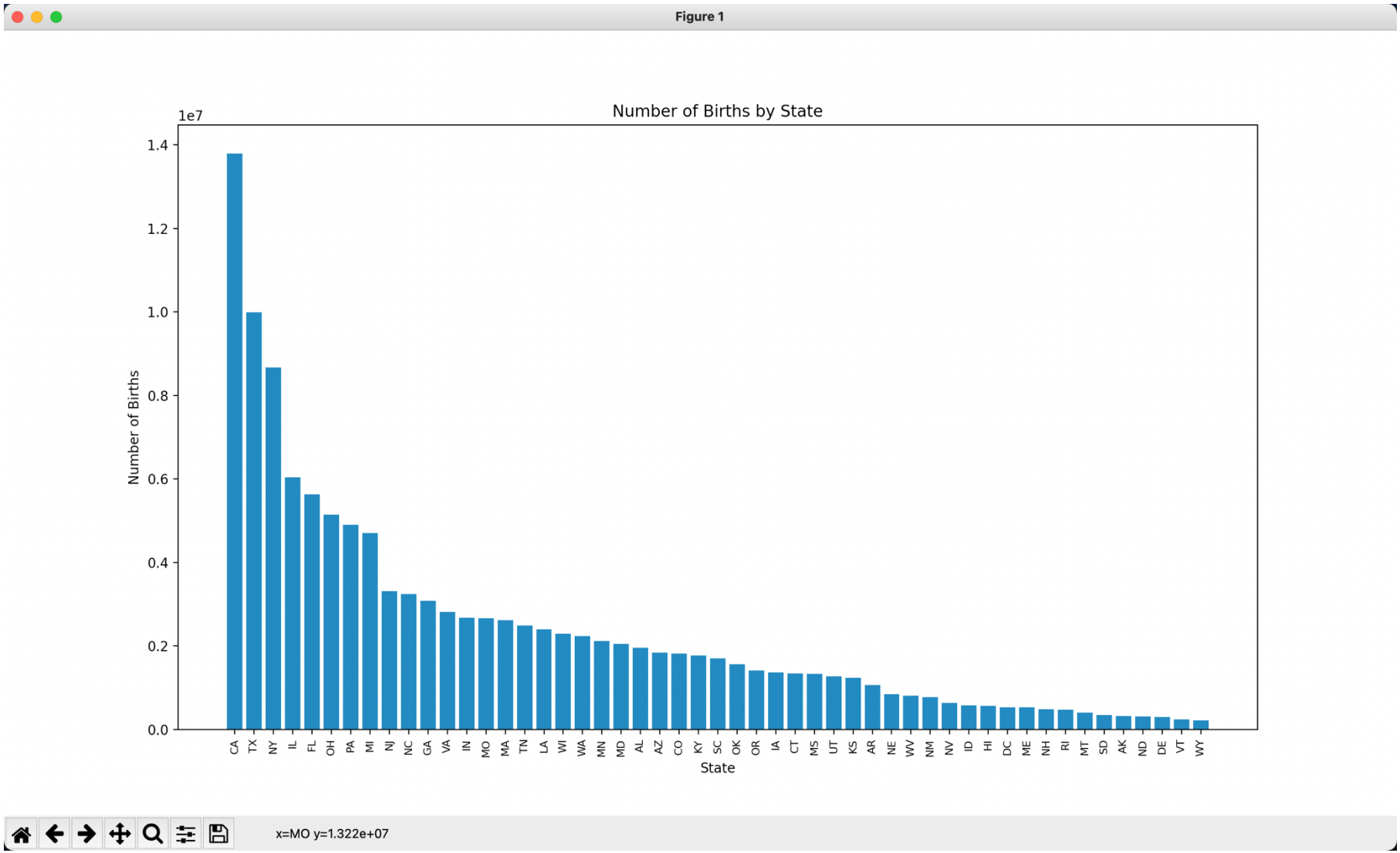
Figure 1
Number of Births by State
1e7
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Number of Births
CA TX NY IL FL OH PA MI NJ NC GA VA IN MO MA TN LA WI WA MN MD AL AZ CO KY SC OK OR IA CT MS UT KS AR NE WV NM NV ID HI DC ME NH RI MT SD AK ND DE VT WY
State
x=MO y=1.322e+07