

PROGRAM NO: 01

DATE:

Tensor Flow Library

PAEG NO:

AIM:

To write a Python Program using
Tensor flow.

ALGORITHM:

Step 1: Start the Program.

Step 2: open clab network

Step 3: Import tensorflow in relevant module

Step 4: Load and normalize the mnist
data

Step 5: Build model

- flatten Input Image
- Add a dense layer with
128 neuron (Relu activation)
- Add an output dense layer
with 10 neurons

Step 6: we declare optimizer sparse
categorical cross - entropy loss and accuracy metric

Step 7: train for 5 epochs with

batch size of 32

Step 8: evaluate test data and Print
accuracy

Step 9: Stop the Process.

PROGRAM NO: 02

DATE:

Searching Maximum and Minimum element
using NumPy

PAEG NO:

AIM:

To write a python program search the maximum and minimum element in a array using numpy.

ALGORITHM:

Step 1: Start the program

Step 2: open google colab notebook

Step 3: Import the numpy library

Step 4: Define an example array with name of array

Step 5: use `np.max()` to find the maximum element in the array

Step 6: use `np.min()` to find the minimum element in the array

Step 7: Print out the maximum and minimum elements

Step 8: stop the process.

PROGRAM NO: 03
DATE:

Natural Language Processing

PAEG NO:

AIM:

To write a Python program using the concept of natural language processing

ALGORITHM:

Step 1: Start the program

Step 2: open Jupyter notebook

Step 3: Import the chat and reflection class from nltk chat module

Step 4: Create a list of pairs where each pair contains a regular expression pattern and list of possible responses

Step 5: Create a Chat instance. the Chat class with the defined pairs and the reflection dictionary

Step 6: Start conversation call in reverse method on the chat instance to begin the conversation

Step 7: Stop the process.

PROGRAM NO: 04

DATE:

Convert a Pandas Module Series to Python List

PAGE NO:

AIM:

To write a pandas module series to Python List

ALGORITHM:

- Step 1: Start the Process
- Step 2: open the google colab
- Step 3: Import the pandas library as pd
- Step 4: and then convert its pandas series into
- Step 5: Then convert the pandas series to Python list using `tolist()` function
- Step 6: And Print the type of the `tolist()`
- Step 7: Stop the Process.

PROGRAM NO: 05

DATE:

Time Series Analysis

PAEG NO:

AIM:

To write a Python Program using the concept of time series analysis

ALGORITHM:

- Step 1: Start the Program
- Step 2: open google colab
- Step 3: Import the pandas and matplotlib libraries.
- Step 4: give same input data as in a dictionary form
- Step 5: then Create a dataframe and set Index and Print it
- Step 6: Create a plot with size of 10%.
- Step 7: given the x label and y label and Print the plot
- Step 8: stop the Process.

PROGRAM NO: 06

DATE:

Clustering Algorithm

PAEG NO:

AIM:

To write the Python Program using the clustering algorithm.

ALGORITHM:

Step 1: Start the Program.

Step 2: open google colab.

Step 3: Import the numpy and the matplotlib libraries

Step 4: Then Import make-blobs from SK Learn dataset.

Step 5: Then assign the example of 500 points

Step 6: Assign the plot in a fig variable

Step 7: Create a Scatter plot and Print it

Step 8: Stop the Program.

PROGRAM NO: 07

DATE:

Reinforcement Learning

PAEG NO:

AIM:

To write a Python Program using the concept of Performance learning

ALGORITHM:

- Step 1: Start the Program
- Step 2: open google colab
- Step 3: Import the random & gym libraries
- Step 4: Create a environment called env & assign the value
- Step 5: Create a for loop & a variable with 10 episodes
- Step 6: Create a while loop to guide random choice of the reward
- Step 7: Print the episode & score
- Step 8: Stop the Process.

PROGRAM NO: 08

Keras Model

PAEG NO:

DATE:

AIM: To write a python Program to find exponents & big nometric Problem using Scipy.

ALGORITHM:

- Step 1: Start the Program
- Step 2: open google colab
- Step 3: Import Keras sequential dense and activation
- Step 4: relu (Rectified linear unit) is a non linear function
- Step 5: used to rectify activation function.
- Step 6: compile model
- Step 7: Stop the Program.

PROGRAM NO: 09

DATE:

Finding exponents and trigonometric
Problems using Scipy

PAEG NO:

AIM:

to write a Python Program to
find exponents & trigonometric problems
using Scipy.

ALGORITHM:

Step 1: Start the Program

Step 2: open google colab

Step 3: Import the numpy & Scipy
special libraries

Step 4: Create a sin value & cos value
& tan value.

Step 5: And Print the values of $\sin(\pi/3)$
& $\sin(\pi/4)$

Step 6: And Create a sin value & a
cos-value & tan-value

Step 7: And Print these values

Step 8: Stop the Program.