

cryptarithmic

```
Solution found:
S = 9
E = 5
N = 6
D = 7
M = 1
O = 0
R = 8
Y = 2
[Finished in 1.9s]
```

Back propagation

```
Output after training:
[[0.06368082]
 [0.94085536]
 [0.94108726]
 [0.06402009]]
[Finished in 2.3s]
```

Frame

```
Name: Ram, Location: Nepal, Birthdate: 15th December 1990, Height: 6 inches, Weight: 75 kg, Job: [Company:
ABC company, Position: AI Researcher, Salary: 1.5 lakhs per month, Location: Kathmandu]
[Finished in 337ms]
```

Logic gates

```
AND Gate
AND(0, 0) = 0
AND(0, 1) = 0
AND(1, 0) = 0
AND(1, 1) = 1
```

```
OR Gate
OR(0, 0) = 0
OR(0, 1) = 1
OR(1, 0) = 1
OR(1, 1) = 1
```

```
NOT Gate
NOT(0) = 1
NOT(1) = 0
[Finished in 305ms]
```

N queen

```
0 0 1 0
1 0 0 0
0 0 0 1
0 1 0 0
```

```
[Finished in 320ms]
```

Water Jug

```
Solution found: You can get exactly 2 gallons in the 4-gallon jug.
[Finished in 280ms]
```

Medical expert

```
Possible diseases based on symptoms: ['Flu', 'COVID-19', 'Pneumonia', 'Common Cold']
[Finished in 301ms]
```

NLP

```
[nltk_data] Downloading package punkt to
[nltk_data] C:\Users\me\AppData\Roaming\nltk_data...
[nltk_data] Package punkt is already up-to-date!
[nltk_data] Downloading package stopwords to
[nltk_data] C:\Users\me\AppData\Roaming\nltk_data...
[nltk_data] Package stopwords is already up-to-date!
[nltk_data] Downloading package averaged_perceptron_tagger to
[nltk_data] C:\Users\me\AppData\Roaming\nltk_data...
[nltk_data] Package averaged_perceptron_tagger is already up-to-
[nltk_data] date!
Sentence Tokenization:
['NLTK is a leading platform for building Python programs to work with human language data.']

Word Tokenization:
['NLTK', 'is', 'a', 'leading', 'platform', 'for', 'building', 'Python', 'programs', 'to', 'work', 'with', 'human', 'language', 'data', '.']

Stop Words Filtering:
['NLTK', 'leading', 'platform', 'building', 'Python', 'programs', 'work', 'human', 'language', 'data', '.']

Word Stemming:
['nltk', 'lead', 'platform', 'build', 'python', 'program', 'work', 'human', 'languag', 'data', '.']

POS Tagging:
[('NLTK', 'NNP'), ('is', 'VBZ'), ('a', 'DT'), ('leading', 'VBG'), ('platform', 'NN'), ('for', 'IN'), ('building', 'VBG'), ('Python', 'NNP'),
('programs', 'NNS'), ('to', 'TO'), ('work', 'VB'), ('with', 'IN'), ('human', 'JJ'), ('language', 'NN'), ('data', 'NNS'), ('.', '.')]
[Finished in 14.2s]
```