

# Centre for Electronic Governance

(Established by Govt of Rajasthan)

**Training Program: Machine Learning**

**Duration: 1 Months (60 Hrs.)**

**Prerequisites: Basic knowledge of C programming. Beginners are also welcome.**

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1. Anaconda and Python development environment setup.
2. Python Basics - Strings, libraries, lists, tuples, dictionaries. functions, file handling.
3. Using scientific libraries in Python - NumPy, SciPy, Matplotlib and Pandas
4. Data preprocessing and ETL activities.
5. Manipulation and Effective Data Visualization
6. Basics of statistics (mean, mode, median, standard deviation etc.) for machine learning.
7. ScikitLearn library and Machine Learning
8. Supervised Learning and its usage.
9. Simple linear regression, Multiple linear regression.
10. Decision tree and random forest regression
11. Decision tree and random forest classification
12. Logistic regression
13. Unsupervised Learning – Clustering (Kmeans) and Association (Apriori)
14. Natural Language Processing
15. Dimensionality reduction techniques (PCA )
16. Web scrapping and REST APIs
17. Projects and code challenges

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