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| Requirement | Case Study | Type | Remark |
| 1. Decision Trees | Bank Note Authentication | Supervised Learning | Also Called As Classification and Regression Tree (CART) |
| 2 + 3. Statistics & Distribution | House Prices | Statistics | Merged Together Because Together They Can Be Explained Better |
| 4. Hypothesis testing | Blood Pressure + Crop Yield | Statistics | - |
| 7. Reinforcement Learning | Modified Taxi Driver Problem | Reinforcement Learning with Q-Learning Agent | Need To Run install extra package. Because Reinforcement Learning Requires Deep Learning Packages.  **pip install gym** |
| 8. Probability and classification, Bayes optimal decisions | IMDB Movie Review – Sentiment Analysis | Supervised Learning | - |
| Sample Data Creation | Supervised Learning | Implemented Plus Compared With Naïve Bayes Based On Covariance |
| 9. Naive Bayes and Gaussian class-conditional distribution | Social Network Ads | Supervised Learning | - |
| 10. Linear discriminant analysis | Railway Train Data | Supervised Learning + Dimensionality Reduction | - |
| 11. Principal Component Analysis | Iris Data – Converted 4D Image into 2D | Unsupervised Learning + Dimensionality Reduction | - |
| 12. Learning Vector Quantization | Ionosphere Data | Supervised Learning + Dimensionality Reduction | - |
| 13. Regularization methods:- Ridge, LASSO | Advertising | Supervised Learning | - |
| 14. K-Nearest Neighbors | Social Network Ads | Supervised Learning | - |
| 15. K means clustering | Identifying Color Code From Image | Unsupervised Learning | - |
| 17. Dimensionality Reduction | Iris Data – Converted 4D Image into 2D | Unsupervised Learning + Dimensionality Reduction | Already Covered 3 DM Algo, But Implemented 1 More Here. |
| 18. Neural Networks | Simple Neural Network Implementation | Neural Network | - |
| Object Detection In Live Video | Neural Network | - |