BCA-6 **CS –37: Machine Learning with Python** **Minimum following exercise should be performed by the students during the semester**	
(1)	Write a Python program/script to make a Pandas DataFrame with two-dimensional list
(2)	Write a Python program to Create a pandas column using for loop
(3)	Write a Python program toChange column names and row indexes in Pandas DataFrame
(4)	Write a Python program to Load different kind of datasets using scikit-learn library
(5)	Write a Python program to Extract the specified rows and columns from the dataset using Pandas
(6)	Write a Python program toHandle missing values using Imputer class with mean strategy
(7)	Write a Python program to Encode categorial data using label encodingtechnique
(8)	Write a Python program toEncode categorial data using one hot encodingtechnique
(9)	Write a Python program to splitting dataset into Training set and Test set
(10)	Write a Python program toPerform feature scaling using standardizationtechnique
(11)	Write a Python program toPerform feature scaling using normalizationtechnique
(12)	Write a Python program toCreate a matrix using numpy and work around
(13)	Write a Python program toPerform mean removal using preprocessing techniques
(14)	Write a Python program toPerform scaling and generate datapoints in a range
(15)	Write a Python program toCreate a vector using binarization technique
(16)	Write a Python program toPerform linear regression using different relationships
(17)	Write a Python program toEvaluate linear regression model using different metrics
(18)	Write a Python program on linear regression model using advertising sales channel data
(19)	Write a Python program toPerform data cleaning processes such as identify null values and outliers
(20)	Write a Python program toGenerate some visualizations to get the detailed insights
(21)	Write a Python program toWorking with heatmap to understand correlation concepts in Machine learning
(22)	Write a Python program toPerforming a summary operation
(23)	Write a Python program toBuilding simple classifier using anyone dataset
(24)	Write a Python program toPerform standard normal distribution using simple classifier
(25)	Write a Python program toBuilding alogistic regression model with use of diabetes datasets
(26)	Write a Python program toEvaluate logistics regression model using accuracy metrics
(27)	Write a Python program toEvaluate a regression model using confusion matrix
(28)	Write a Python program toBuilding a model using Naïve bayes classifier
(29)	Write a Python program toVisualize the training setand test set result (use normalization technique)
(30)	Write a Python program toPredict if cancer is Benign or malignant using SVM algorithm
(31)	Write a Python program toBuild a model using K-means algorithm
(32)	Write a Python program toFind the optimum number of clusters using elbow technique
(33)	Write a Python program toPlot the cluster center using different data points
(34)	Write a Python program toImplement Mean shift clustering algorithm to work with non-parametric clustering
(35)	Write a Python program toUse bandwidth and bin seeding concept to improve mean shift

	clustering algorithm
(36)	Write a Python program toBuild a model with use of agglomerative clustering
(37)	Write a Python program toCreate a linkage matrix using agglomerative clustering algorithm
(38)	Write a Python program toImplement NLTK library and download relevant data
(39)	Write a Python program toImplement stemming concept with using PorterStemmer
(40)	Write a Python program toImplement lemmatization technique to extract the base form of words
(41)	Write a Python program toCreate a chunk parser
(42)	Write a Python program toImplement the structure of sentence
(43)	Write a Python program toEvaluate the grammar using parser
(44)	Write a Python program toGenerate a grammar tree with use of sentence
(45)	Write a Python program toImplement computer vision using OpenCV
(46)	Write a Python program toWork around computer vision relevant python libraries
(47)	Write a Python program toUse of imread(), imshow(), and imwrite()
(48)	Write a Python program toDetect faces from an image using haar-cascade classifier
(49)	Write a Python program toDetecting different objects from a face such as face, eyes
(50)	Write a Python program toDetect a face from a recorded video
(51)	Write a Python program toDetect a face using live streaming