## Set 4

- 1. Analyze dataset (mushrooms.csv) classify the type of mushroom with SVM classifier using python
  - a. Analyze the data and explore missing values
  - b. Visualize the significant features by its distribution.
  - c. Handle outliers and plot it.
  - d. Apply feature scaling and also balance data
  - e. Build model using SVM classifier
  - f. Run SVM with RBF kernel, Polynomial kernel and Sigmoid kernel
  - g. Train the model
  - h. Summarize performance of the model using confusion matrix
  - i. Analyze the model and visualize it with ROC
  - j. Evaluate the model performance with classification report.
- 2. Create customer table with the following schema using MongoDB and implement the following: (customer\_id, acc\_name, accountno, phoneno,email,branchname,balance)
  Note: Insert 10 records.
  - a. Display all the details of customer who belong to specific location.
  - b. Update the balance of customer as they get interest for the amount on quarterly basis.
  - c. Display the details of customers are ranked as 'TOP 5' based on their balance.
  - d. Remove the details of the customer who has zero balance.
  - e. Display the count of customer in each location.
  - f. Display all the customers who belong to specific location and also with balance greater than 1000, but less than 1 lakhs.
  - g. Display all the customer details in descending order based on their balance
  - h. Update the phone number and email of specific customer.
- **3.** Create an AWS instance and deply the customer details in cloud.