**Case Study 1  
Cricket Data Analysis - Finding the most consistent player using the statistics module**

The participants will be given datasets related to scores made by cricket batsman and using the statistics module in python, the participants should write the code that finds the most consistent batsman.

The consistency is measured by the computed strike rate.

**Learning Curve:**

File handling,

using modules,

practical use of lists, strings and dictionaries

**Case Study 2  
Implementing text cleaning and search framework**

An object-oriented module is created that reads text from a file, cleans the text of any special characters. And a network interface is built to the module, a socket server and a socket client is built.

The client can send any word over the network and the server using the helper OO module, finds all the lines in the file that matches the word/pattern, accumulates them into a list and sends to the client. Before sending to client, the server converts the python data structure into either xml or json.

The client will parse the xml or json and displays the result

**Learning Curve:**

OO Coding   
 Regular Expressions   
 Functional Programming Tools   
 List and Dictionary Comprehension   
 Socket Programming   
 json and xml

**Case Study 3  
Implementing the customer database**

Here we implement a web-based customer database. The flask framework is used to achieve this. The following will be implemented.

Registration end point   
Login end point   
Add your customer – name, email, phone, gender and dob of the customer  
Edit Customer end point   
Delete Customer end point   
Get customer/s end point

**Learning Curve** Flask API   
 Decorators   
 JWT Token authentications   
 Database modeling using flask-sqlalchemy