

Aayush Shah

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# Big Data Analytics

## Practical 10

### **Aim**

Case study: Use following platforms for solving any big data analytic problem of your choice.

1. Amazon web services, 2. Microsoft Azure, 3. Google App engine

### **Big Data Analysis problem chosen**

In this project definition, we looked at the problem of detecting fraud in banking transactions. Assume we have a bank customer who does his banking activities on a consistent basis; then a pricey purchase should be considered a fraud. For speed considerations, we employ the Apache Spark framework in this work to detect credit card fraud. We picked Apache Spark because it is the most powerful open source project in Big Data, with over 1200 developers contributing to Spark, and it is quickly supplanting Hadoop's MapReduce as the de facto standard for big data processing. Hadoop is a distributed, open source Java compute technology that includes the Hadoop Distributed File System and MapReduce (the execution engine).

### **Which platform is most suitable among all the three of my application**

Spark is comparable to Hadoop in that it is a distributed, general-purpose computing platform. However, Spark's unique design allows it to hold massive volumes of data in memory and provides significant performance gains. Spark programmes can run 100 times quicker than MapReduce programmes. With Spark, only one step is required to read data into memory, perform operations, and return the results, resulting in much faster execution. Spark also reuses data by using an in-memory cache to greatly accelerate machine learning algorithms that call the same function on the same dataset repeatedly.

To recapitulate, creditcard fraud detection includes precious resources of which security is first and foremost concern and it's equally important to detect anomaly as quickly as possible and for that we used spark.

### **Conclusion**

In this practical, I've discussed the problem chosen for innovative assignment and why the spark is used for solving the same.