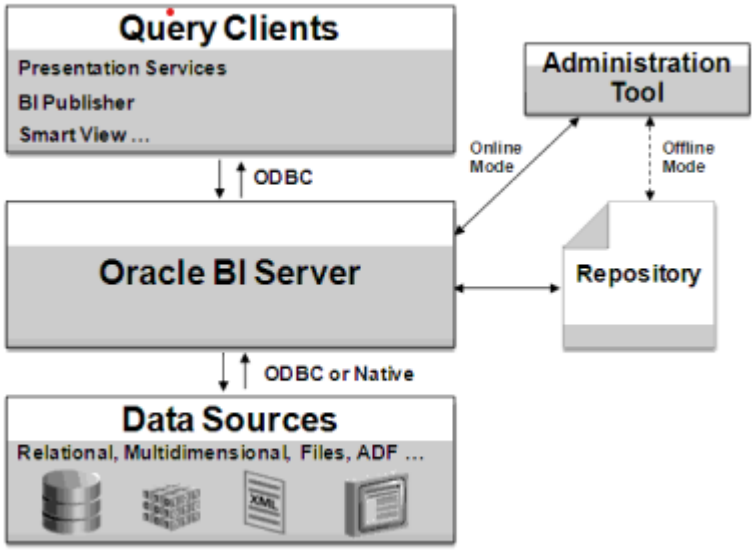
SUBJECT: DATA MINING AND BUSINESS INTELLIGENCE
Experiment No. 10

Aim: Case Study on any one Business Intelligence tool.

Theory:

1. Oracle Business Intelligence:

Oracle Business Intelligence (BI) is a portfolio of technology and applications that provides the industry's first integrated, end-to-end Enterprise Performance Management System, including BI foundation and tools - integrated array of query, reporting, analysis, alerting, mobile analytics, data integration and management, and desktop integration - as well as category-leading financial performance management applications, operational BI applications, and data warehousing. Oracle BI is a comprehensive collection of enterprise business intelligence functionality that provides the full range of business intelligence capabilities, including dashboards, full ad hoc, proactive intelligence and alerts, and so on. Typically, organizations track and store large amounts of data about products, customers, prices, contacts, activities, assets, opportunities, employees, and other elements. This data is often spread across multiple databases in different locations with different versions of database software.



2. Clementine:

Clementine 8.1 has a sensible design and eminently practical user interface. The BA

features neither degrade what's already there nor disappear into the massive capabilities that anchor the Clementine data mining product family. Clementine is one of several predictive analytics products from SPSS that help companies improve their visibility into their customers' buying trends and habits. In a nutshell, the software accomplishes this little feat of magic by analyzing information on past circumstances along with present events, and projecting their future actions, such as whether they might stop being customers, or try to rip somebody off.
The underlying workbench design uses a graphical representation of the analyst's own process workflow. The data mining workflow requires formulating the right cluster of questions to ask, identifying a subset of data from the warehouse or mart that addresses the questions, cleaning and restructuring the data, loading it, running it iteratively until you have a predictive model, and then saving the work for reuse.

Clementine supports all of this work except the purely human-expertise task of creating the right set of questions. That makes the goal of the data mining client — attacking large stores of collected data and pulling out meaningful relationships that hint at or even sometimes scream out actions to take — easier to achieve. For shops already committed to SPSS infrastructure, choosing Clementine is a no-brainer; for those with mixed platforms, Clementine's virtues make it a very strong choice.

Distributed Architecture

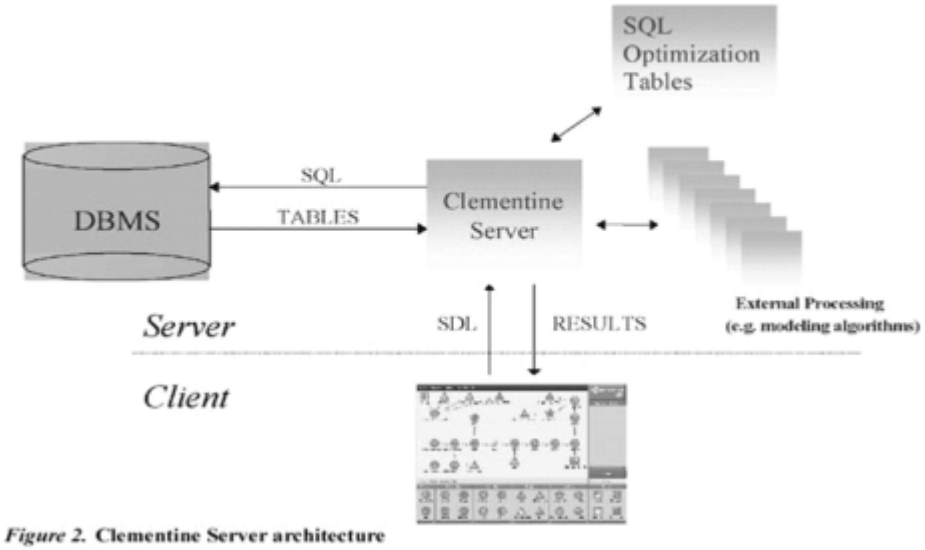


Figure 2. **Clementine Server architecture**

3. XLminer:

XLMiner™ is a comprehensive data mining add-in for Excel. Data mining is a discovery-driven data analysis technology used for identifying patterns and relationships in data sets. With overwhelming amounts of data now available from transaction systems and external data sources, organizations are presented with increasing opportunities to understand their data and gain insights into it. Data mining is still an emerging field, and is a convergence of fields like statistics, machine learning, and artificial intelligence. XLMiner is a tool belt offering a variety of methods to analyse data. It has extensive coverage of statistical and machine-learning techniques for classification, prediction, affinity analysis, data exploration, and reduction.
XLMiner is Microsoft Excel plug-in software [1], a product of Quant Link. It works with Microsoft Excel (English versions 2000, 2003 or 2007) environment. This tool offers solving many data mining tasks using the most popular methods [2]. Available tasks include classification, clustering, time series analysis and associative rules. XLMiner also offers a possibility of sampling data from external data bases or MS Excel spreadsheets, as well as partitioning data set into training, validation and test data sets and performing data pre-processing. The tool also includes some visualization options and allows using a pre-created model on new data. The tool works with the MS Excel environment but the work with the supported methods is carried out using a standard three step wizard that guides the user through the stages of input data information, method parameters and output data information.

Results and model data are shown in specially designed MS Excel worksheets that make further analysis faster and easier. The tool also outlines the ranges of spreadsheets that will be needed for further work with this tool and this data (e.g. applying other methods). Most of the computer users are already familiar with the MS Excel interface therefore learning to work with XLMiner is quick and easy, it doesn't require an extended course on one program if users have some knowledge about data mining and the methods that are used in this tool.