Research Methodology:

Empirical research

is a way of gaining knowledge by means of direct and indirect observation or experience. Empirical evidence (the record of one's direct observations or experiences) can be analyzed quantitatively or qualitatively. Through quantifying the evidence or making sense of it in qualitative form, a researcher can answer empirical questions, which should be clearly defined and answerable with the evidence collected (usually called data). Research design varies by field and by the question being investigated. Many researchers combine qualitative and quantitative forms of analysis to better answer questions which cannot be studied in laboratory settings, particularly in the social sciences and in education. In some fields, quantitative research may begin with a research question which is tested through experimentation in a lab. Usually, a researcher has a certain theory regarding the topic under investigation. Based on this theory some statements, or hypotheses, will be proposed from these hypotheses predictions about specific events are derived. These predictions can then be tested with a suitable experiment. Depending on the outcomes of the experiment, the theory on which the hypotheses and predictions were based will be supported or no

4.1 Research Area:
This research is basically of computer science where in the usage of data mining tool is studied for Integrated Library System. For conducting this research management institutes in Pune region are taken as a consideration
4.2 Research Design:

The research design provides complete guidelines for data collection. It consist of various activities in research such as selection of research approach, designing of sampling plan, designing of questionnaire (if required) etc. As this study is classifying the library’s data by using various data mining tools, So that the decision making could be easier for Integrated Library System (ILS), so for conducting this study algorithmic research design is used. An algorithm is a well defined sequence of steps to solve a problem of interest in this research and later on the experimental research is used to study the effect of the data mining tools on the library data for decision making in Integrated Library System (ILS) The secondary sources of information were the computerized records of library books details to determine maximum use of the library books were made and which particular department books are highly used by the students.