Introduction.

Student Performance Analysis’s System is an emerging field and is very crucial to schools and universities in helping their student and faculty. As we all know in today’s environment, there is a lack of quality education, and also the competition is increasing day by day.so there is need for quality steps to improve the standard of the students . The main goal of every university/School is to provide quality knowledge and skills to students so that they are competitive in the labor market. One way to achieve this goal is to timely predict student performance. The analysis of student’s progress during their studies provides the management with the information about the probability of success of each student. Traditionally it is done by the lecturers who use their interaction with students in the class room activities and in the mid-term assessments to identify those at-risk of dropping out and take timely actions. But in the modern system of education, the time of communication between lecturers and student is decreasing and hence it becomes difficult to find weak student or students who need extra attention or support. As in the age of mass computerization, a lot of data is collected in educational institutions, but it remains unused so we can use that data to increase the performance of our students and for this we will be using Machine learning Algorithm (MLA) so that we can take benefit or advantage of the available data.

Many researches have been done on this topic, so researchers had come to a conclusion that technology can be an important factor for analyzing the flaws. And also the use of technology makes the decision-making easy, as it generates reports and graphs for analysis purpose. So basically in this project we will analyze the performance of the student and then prediction will be done on the data that we got after analysis. We will be able to analyze the performance of single student as well as performance of whole class.

Library Used.

1. Pandas: Pandas is the software library written for the python programming language it is used for working with datasets. It has functions for analyzing, cleaning, exploring and manipulating data. The name “Pandas” has a referenced to both “Panel data” and “Python Data Analysis” and was created by Wes McKinney in 2008.
2. Sklearn : Skit-learn is the most useful and robust library for machine learning in Python.it provides a selection of efficient tools for machine learning and statistical modeling including classification ,regression ,clustering and dimensionality reduction via a consistence interface in Python. This library, which is largely written in Python, is built upon NumPy and Matplotlib.
3. Matplotlib: it is an amazing visualization library in python for 2D plot of arrays. Matplotlib is a mutli-platform data visualization library built on NumPy .it was introduced by the John Hunter in the year 2002.one of the advantage of this library is that it allows us to access huge amounts of data in visuals.MatPlotlib consists of plots like lines, bar, scatter, histogram etc.
4. NumPy: NumPy stands for Numerical Python, is a library consisting of multi-dimensional array objects and a collection of routines for processing those array. Using NumPy, mathematical and logical operations can be performed.