

# Chapter 1

## Introduction

### 1.1 Introduction

Data mining is the process of discovering interesting knowledge, such as patterns, associations, changes, anomalies and significant structure, from large amounts of data stored in databases, data warehouses, or other information repositories. Due to the wide availability of huge amounts of data in electronic forms, and the imminent need for turning such data into useful information and knowledge for broad applications including market analysis, business management, and decision support, data mining has attracted a great deal of attention in information industry in recent years. [16]

Data mining has been popularly treated as a synonym of knowledge discovery in databases, although some researchers view data mining as an essential step of knowledge discovery. [16]

The X university have database stored the records of the students, this database contains the details about the students, contains the details student id, attendance degree, and student degree. these data contains hidden valuable information when discovered can be using to make right decisions, using k-mean method to clustering these data into clusters have same characteristics, by using WEKA platform.

### 1.2 Statement of Problem:

There is a need for evaluating the electronic education and traditional education in order to improve the performance of the students in the two categories. In this era found that the e-learning has a positive effect on the academic achievement levels by modern techniques, in this research we will try to prove these facts through the data that we have acquired them.

### **1.3 Research Objectives:**

1. Using data mining technique to explore the data that come from the two type of education the traditional and electronic learning in orders to compare their performance.
2. Results from analysis could help stakeholders in making decision.

### **1.4 Research Structure:**

This research contains **five** chapters: **Chapter I** contains introduction, **Chapter II** literature review and related works, **Chapter III** methodology, **Chapter IV** results and discussion, **Chapter V** conclusion and recommendation.