

# CHAPTER 1

## INTRODUCTION

### 1.1 Background

In the marketing industry, certainly recording items transactions will occur every day. Item transaction data contains a record of what items were purchased, quantity, and price. Not only purchasing items, such as other examples of borrowing books, DVDs, even even searching ticket schedules. The transaction will certainly occur every day, in a day the data entered can be tens to hundreds of transactions.

Of the many transactions of these items can be found what items are associated. To find items that are associated can use math and statistics. In this project, apriori algorithm is used to find associate patterns for each consumer transaction. So from that transaction data that is very large in number is very difficult to find consumer association patterns manually. By using the concept of data mining (apriori algorithm approach) is very suitable to find which items are most often purchased together by consumers based on a list of consumer transactions.

Based on the above problems, this project offers a php-based program solution based on apriori algorithm, this program can manage all consumer transaction data and look for purchasing patterns accurately so that the owner can know and manage the best-selling items on the market.

### 1.2 Scope

From this background can be defined several problems that will be discussed in this project report, there is:

1. How to apply apriori algorithm to find out which items are purchased simultaneously by consumers?
2. Is apriori algorithms effective for handling large amounts of data?

3. How can apriori algorithm recommend items according to consumer habits?

### 1.3 Objective

The goal of this project is to produce a program to calculate the pattern of consumer transactions and recommend which items appear most often.

