

## **1 Problem statement:**

When you are shopping, suppose you are stuck with some products and you are not confused in making the final decision, the first idea that comes to your mind is to contact people who are close to you. Be it your friends or family members. But, they may not always be available to help you.

## **2 Solution:**

With the help of friendship network and the past purchase data of nodes in the graph, we can calculate the average number of hops your friends are away from you for a specific product. Based on the output, you can choose the product with highest number of hops, if you want the product to be unique, else the one with less number of hops.

## **3 Challenges:**

Getting the friendship data is easy since it is already available in online. But, getting the past purchase data of the nodes in the graph is really difficult. Even if we get succeed in collecting the data, since we are processing with sensitive data, a strong level of security guarantees has to be maintained.