Aadhar Card Management

1   Thought Process

To maintain a record of Aadhar data of various users for a phone company, on the basis of which the phone company will give out unique phone numbers

In order for the search time to have the complexity of O(1) i.e. constant time, Hashing needs to be used and a Hash table needs to be maintained.
The user's name is being used to check for his Aadhar record and therefore, must be the key used in the hash table.

2   Object Oriented Programming Concepts

1. Inheritance:

The property by virtue of which one object can acquire the attributes of another.

Different classes were used to maintain the Aadhar records and the Hash table. Both inherited by a base class handling everything.

2. Encapsulation:

The property by virtue of which the internal data remains hidden from the user during the process of program execution to prevent misuse.

The user and the telephone company can just check if a particular record is present or not. Rest of the data remains hidden.