**Implementation Overview**

1. Solution has been implemented using Java language.
2. Implemented as standalone application, Could have been implemented as web project with REST Service but thought for this small problem it would have been an overkill or over engineering.
3. Application is packaged as jar file and can be run on command line using java –jar.
4. All the input data is stored in csv which is under resources folder named as
5. ancestorData.csv : stores ancestor name and discount applicable
6. categoryData.csv : data structured as category name, ancestor type and discount applicable which suffice the parent child relation.
7. brandData.csv : stores brand name and discount applicable.
8. Design Pattern :
9. Creational Pattern : Singleton Pattern implemented for Config Class as this is responsible for loading all input data and creating Data model for look-up.
10. Behavioural Pattern : Strategy Patten implemented for Service class as data is structured and saved into look up as what is the objective to get discounted price as per the rule.
11. All the edge cases and negative cases has been handle by checked exception with proper message based on condition.
12. Application has been written keeping in mind for future enhancement achieving flexibility notion by doing loose coupling.
13. For input data it has to be a csv file located anywhere but need to pass the absolute path for the same as argument on command line. If no input data is provided by default input.csv file is located in Classpath (resources folder) with data in problem statement.