

A. Functional Dependency

- 1) Suppliers: $A \rightarrow ABCDEFGH$
- 2) Order: $B \rightarrow ABCDEFG$, $C \rightarrow F$
- 3) OrderDetail: $A \rightarrow ABCDEF$, $B \rightarrow CF$
- 4) Product: $A \rightarrow ABCDEF$
- 5) Category: $A \rightarrow ABCD$
- 6) Delivery: $A \rightarrow ABC$
- 7) Shippers: $A \rightarrow ABCD$
- 8) Customer: $A \rightarrow ABCDEFGHIJ$, $G \rightarrow H$

B. Constraints

- 1) Suppliers: Primary Key (A)
- 2) Product: Primary Key (A), Foreign Key (C) Refers Category(A)
- 3) Category: Primary Key (A)
- 4) Order: Primary Key (A), Foreign Key (C) Refers Suppliers (A)
- 5) OrderDetails: Primary Key (A), Foreign Key (B) Refers Product (A)
- 6) Delivery: Primary Key (A), Foreign Key(C) Refers Suppliers(A)
- 7) Customer: Primary Key (A)
- 8) Suppliers: Primary Key (A)

C. Functionalities

Proposed -

- 1) File like pictures saved in through File system like AWS S3 Bucket or Firebase Storage Service.
- 2) Graph implementation to show the product flow in the company.
- 3) Web Scrapping to show comparison with another online Platform.
- 4) User Authentication
- 5) Rating Calculation through User Feedback

D. Checks

- 1) Credit Card Information (Primitive)

E. Security (Proposed)

- 1) Hashing

F. Size of Databases

- 1) Companies database would have between 20 -30 tuples.
- 2) Category have 10 – 15 values.
- 3) Product under ever Category with entries between 30 – 40 each.

**** The Size Increase will happen on the basis on the project competition time ****