1. ASSUMPTIONS
   1. A user can add many products into cart and from that user can place order and products will be ordered and products will be added to placed order table
   2. A seller can hold so many products as per its area
   3. Many seller would have same product
   4. Seller will have number of cities where he/she can deliver a product
   5. Admin have access to block the user for miscellaneous activity
   6. Admin can add admin
   7. User can add more than one product into cart
2. Identify the entities
   1. SellerInfo
   2. SellerProduct
   3. SellerAddress
   4. SellerDeliverable
   5. Products
   6. ProductDescription
   7. Product Categories
   8. Product brands
   9. Users
   10. Cart
   11. Orders
   12. UserPlacedOrder
   13. UserAddress
   14. Admin
   15. Cities
   16. State
   17. Country
3. Relations
   1. Customer may have number of address and address may have number of customer. Hence, Cardinality is Many to many
   2. Customer may but number of products and product could be bought by so many customers. Hence, Cardinality is many to many
   3. One brand may have number of categories. One category can contain so many brands. Hence, Cardinality is Many to Many.
   4. One product will have one description. Same for the description, hence Cardinality is One to one
   5. One product will have one brand, but brand may have number of product. Hence, Cardinality is many to one
   6. Same for the category as well . So, Cardinality is one to many
   7. Address will have one city where as city could have number of addresses. Hence, Cardinality is many to one
   8. City will have one state and state have many cities. Hence, Cardinality is many to one
   9. Same for the state and country. So, cardinality is many to one.
   10. Same for the state and country. So, Cardinality is many to one.
   11. Seller can sell so many products, whereas product should also have number of sellers. Hence, Cardinality is many to many
4. Identify the key attributes
   1. SellerInfo [SellerId]
   2. SellerProduct [SellerId fk, ProductId fk]
   3. SellerDeliverable [SellerId fk, CityId fk]
   4. SellerAddress[SellerAddressId pk, sellerId fk, CityId fk]
   5. Products [ProductId pk, CategoryId fk, BrandId fk]
   6. ProductDescription [ProductId fk]
   7. Product Categories [CategoryId pk]
   8. Product brands[BrandId pk]
   9. Users [UserName pk]
   10. UserCart [UserId, ProductId]
   11. UserOrders[UserId, productId]
   12. UserPlacedOrders [UserId, PlacedOrder]
   13. UserAddress [UserId fk]
   14. Admin [AdminId]
   15. Cities[CityId, StateId fk]
   16. State[StateId, CountryId fk]
   17. Country [CountryId pk]
5. Table column data
   1. SellerInfo (SellerId, SellerName, SellerContact, SellerEmail, SellerCompanyName, SellerDate)
   2. SellerProduct (SellerProductId, SellerId, ProductId, SellerProductDate)
   3. SellerDeliverable(SellerDeliverableId, SellerId, CityId, DeliverableDate)
   4. SellerAddress [SellerAddressId, SellerId, SellerAddress, SellerCity]
   5. Products(ProductId, ProductName, ProductPrice, ProdutValidity, CategoryId, BrandId,ProductDate,Offer)
   6. ProductsDescription (ProductDescriptionId, ProductId, productCompany, ProductDescription,ExtraDescription [e.g. mobile has RAM,ROM,ScreenSize,Processor,OS,etc. ], RelatedCategory [e.g. Mobile’s related product would be charger,case, etc.] , DescriptionDate)
   7. ProductCategories (CategoryId, CategoryName)
   8. ProductBrand(BrandId, BrandName)
   9. User (UserId, UserFirstName, UserMiddleName, UserLastName, UserLogIn , UserPassword, UserContactNo, UserEmail, UserBirthDate, UserDate)
   10. UserAddress(UserAddressId, UserId, UserAddressFullName, UserAdressContact,AddressType, UserAddressDetail, UserCityId)
   11. UserCart(UserCartId, UserId, ProductsId, CartDate)
   12. UserOrders(UserOrderId, UserId, ProductId, OrderDate)
   13. PlacedOrder(UserId, ProductId, OrderDate,Status)
   14. Admin(AdminId,AdminLoginId, AdminPassword, AdminFullName, AdminContactNumber, AdminAddress, AdminEmail, AdminAuthority[To add another admin], AdminDate)
   15. City(CityId, CityName, StateId, PostalCode)
   16. State(StateId, StateName, CountryId)
   17. Country(CountryId, CountryName)

Views

1. Brand \* Category\*product [to know which brand sales which Product of which category]
2. placedOrder\*product\*UserData\*Seller [For billing detail]
3. product\*seller\*sellerDeliverable\*city

Procedures

1. SpCountry : to add, delete or update country
2. spStates : to add, update or delete states
3. spCities : to add, update or delete City
4. addUser : to add user
5. addUserAddress : to add userAddress
6. spProduct : to add or update product
7. deleteProduct : to delete product
8. SearchProduct : to search product by product name, brand or category
9. spBrands : to update, delete, or insert a brand
10. spCategory : to update, delete, or insert a category
11. spUpdateBrandCategory : to update brand or category for product
12. spCart : to add or delete a product from cart
13. spOrders ; to place a order from cart or a product from a page
14. spPlacedOrder will take a product from orders