# Solution of the Problem1 (Module 3)

ERD – ERD diagram, WS – Special Events Worksheet

## Dimensions + mapping to data sources

* Franchise (source: ERD + WS)
  + FranchRegion may be hierarchical in Franchise dimension (wider areas to narrow/small regions)
* ProductService (source: ERD + WS)
  + Product is a combination of ServiceCategory (ERD) + WS
* Member (source: ERD + WS)
* Merchandise (source: ERD + WS)
* Calendar (source: standard data warehouse dimension, hierarchical)

## Dimensions Attributes + mapping to data sources

* Franchise
  + FranchId: ERD
  + FranchRegion: ERD (Franchise table), hierarchical (Country -> FranchRegion)
  + FranchPostalCode: ERD
  + FranchModelType: ERD
* ProductService
* ProdId: ERD (ServCatId -> ServiceCategory Table, special Id for Special events)
* ProdName: ERD + WS (ServCatName -> ERD or Event Name -> WS)
* ProdType: WS (Event Type Code -> WS and Service Type for Service Category)
* Member
* MmbrId: ERD + WS (Corporate CustomerId -> WS)
* MmbrName: ERD + WS (Corporate Customer Name -> WS)
* MmbrZip: ERD. *Note: we can add some processing for finding ZIP codes for customers from WS (Customer Location -> WS, in case ZIP codes can be found out for region, we can enter zip codes for corporate customers)*
  + MmbrEmail: ERD, hierarchical (top level domain -> second level domain -> local part)
* MmbrType: ERD (MemberType table)
* Merchandise
* MerchId: ERD
* MerchName: ERD
* MerchType: ERD
* Calendar
  + Date columns in the ERD (MmbrDate, ServPuchDate, and SaleDate) and in WS (EventDate, can be added as ServPurchDate as on that day event was purchased and amount was given), hierarchical (year -> month -> day)