Question 1:

Dimensions:
The dimensions are derived directly from the ERD. The dimensions are **Member**, **Merchandise**, **ServiceCategory** and **Calendar**. Member includes members from both the ERD and the spreadsheet. ServiceCategory stores services from the ERD and special events from the spreadsheet, with a SpecialEventFlag to denote whether it is a special event or a service. Calendar is a standard hierarchical data warehouse dimension.
The schema has two fact tables, SalesFact and ServPurchFact, so it is a constellation schema.

1. **Member:**
   a. MmbrId: ERD and spreadsheet
   b. MmbrName: ERD and spreadsheet
   c. MmbrZip: ERD
   d. MmbrEmail: ERD; hierarchical(top level domain → second level domain → local part)
   e. MmbrType: ERD
   f. MmbrTypePrice: ERD
   g. Franchise: ERD
   h. FranchRegion: ERD
   i. FranchPostalCode: ERD

2. **Merchandise:**
   a. MerchId: ERD
   b. MerchName: ERD
   c. MerchPrice: ERD
   d. MerchType: ERD

3. **ServiceCategory:**
   a. ServCatId: ERD | EventTypeCode: Spreadsheet
   b. ServCatName: ERD | EventName: Spreadsheet
   c. ServCatPrice: ERD | Amount: Spreadsheet
   d. SpecialEventFlag(Yes: Special Event; No: Service)

4. **Calendar:**
   a. All date columns in ERD(SalesDate, ServPurchDate, MemberDate) and Spreadsheet(Event Date); hierarchical (year → month → day)