Person

| Ssn | age | gender | firstName | lastName | GId |
|-----|-----|--------|-----------|----------|-----|

Company

| cName | cAddress | GId |
|-------|----------|-----|

Guest

| GId | guestType | OrdId *delete it* | VId | status |
|-----|-----------|-------------------|-----|--------|

注：Guest 的 union type 的实现方式是 surrogate key.

Gym

| FacilityId | type |
|------------|------|

ChessRoom

| FacilityId | size |
|------------|------|

Facility

| FacilityId | ServiceId | Session *session* |
|------------|-----------|-------------------|

注：Facility 的 union type 的实现方式是 inheit the same key.

Food

| FoodId | ServiceId | deliveredTime |
|--------|-----------|---------------|

注：Specialization Food & Facility 的实现方式是 a. Multiple Relations – superclass and subclass.

Service

| ServiceId | cost | RoomId |
|-----------|------|--------|

注：Relationship Orders 的实现方式是 Foreign key.

Room

| RoomId | available | price | BigFlag | DoubleFlag | SingleFlag |
|--------|-----------|-------|---------|------------|------------|

注：Specialization BigRoom & DoubleRoom & SingleRoom 的实现方式是 d. Single relation with multiple type attributes.

Administrator

| UserId | password |
|--------|----------|

Employee

| UserId | password |
|--------|----------|

注：Specialization User 的实现方式是 b. Multiple relations – subclass relations only.

Bill

| GId | BillId | ResId | EId | payDate | total |
|---|---|---|---|---|---|
| | | | | | |

注：weak entity 继承了 owner entity 的 primary key – Gid.

Pays

| GId | BillId |
|---|---|
| | |

*Delete*

注：Relationship pays 的实现方式是 Relationship relation.

Contact

| GId | telNo |
|---|---|
| | |

注：telNo 是 Multivalue attribute.

Reserve

| EmpId | GId | RoomId | ResId | startDate | endDate |
|---|---|---|---|---|---|
| | | | | | |

注：Reserve 是 3-ary relationship. 实现方式是 Relationship relation.