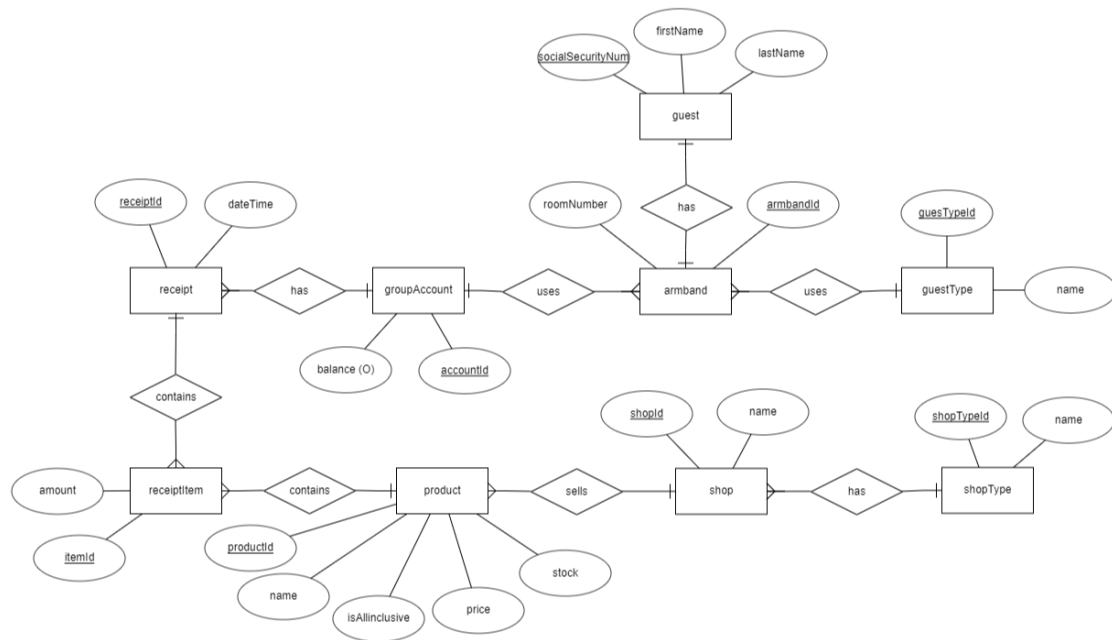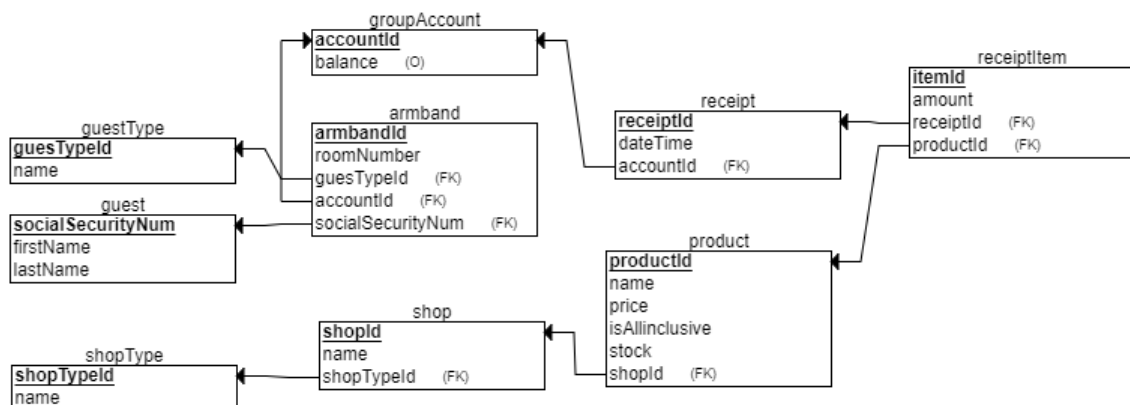## Exercise 1.

Exercise 2.

Exercise 3.

guest: Tells information about the hotel customer.

> **guest – armband**: One to one relation connection used to connect the armband and services to hotel guest.

armband: Connects to the guest to the account which is used in hotel services.

guestType: Information how the guest is paying for services.

> **armband – guestType**: Tells information about how the customer wants to pay for their stay.

groupAccount: Account for one or multiple people which stores information about the transactions.

> **armband – groupAccount**: Connects armband to the account, which is used for services, thus connecting the hotel guest to the account.

receipt: Information about purchased items.

> **groupAccount – receipt**: Collects information about purchases to the account

receiptItem: One line of items on the receipt eg. 3 cokes

> **receipt - receiptItem**: Contains all the information about single type of item purchased on the receipt.

product: Describes product and contains stock of items in hotel inventory.

> **receiptItem - product**: Connects the purchased product to the item on the receipt.

shop: Contains shop name and reference and to the type of shop.

> **product – shop**: Tells which store the product is from as well as tells which products the store has. This also describes the inventory that the store has.

shopType: Information about the store, for example restaurant, bar, clothing store.

> **shop – shopType**: Tells which kind of store is in question, extracted into its own table for easy data manipulation in the need arises.

Exercise 4.

Model data

guest: <u>100300-XXXX</u>, Uotila, Max

armband: <u>1001</u>, 101, 1, 2001, 100300-XXXX

guestType: <u>1</u>, All-inclusive

groupAccount: <u>2001</u>, $50

receipt: <u>100001</u>, 29.1.2023 19:45, 2001

receiptItem: <u>200001</u>, 5, 100001, 50

product: <u>50</u>, beer, $5.50, true, 5000, 3

shop: <u>3</u>, Beach bar Peachy, 5

shopType: <u>5</u>, bar