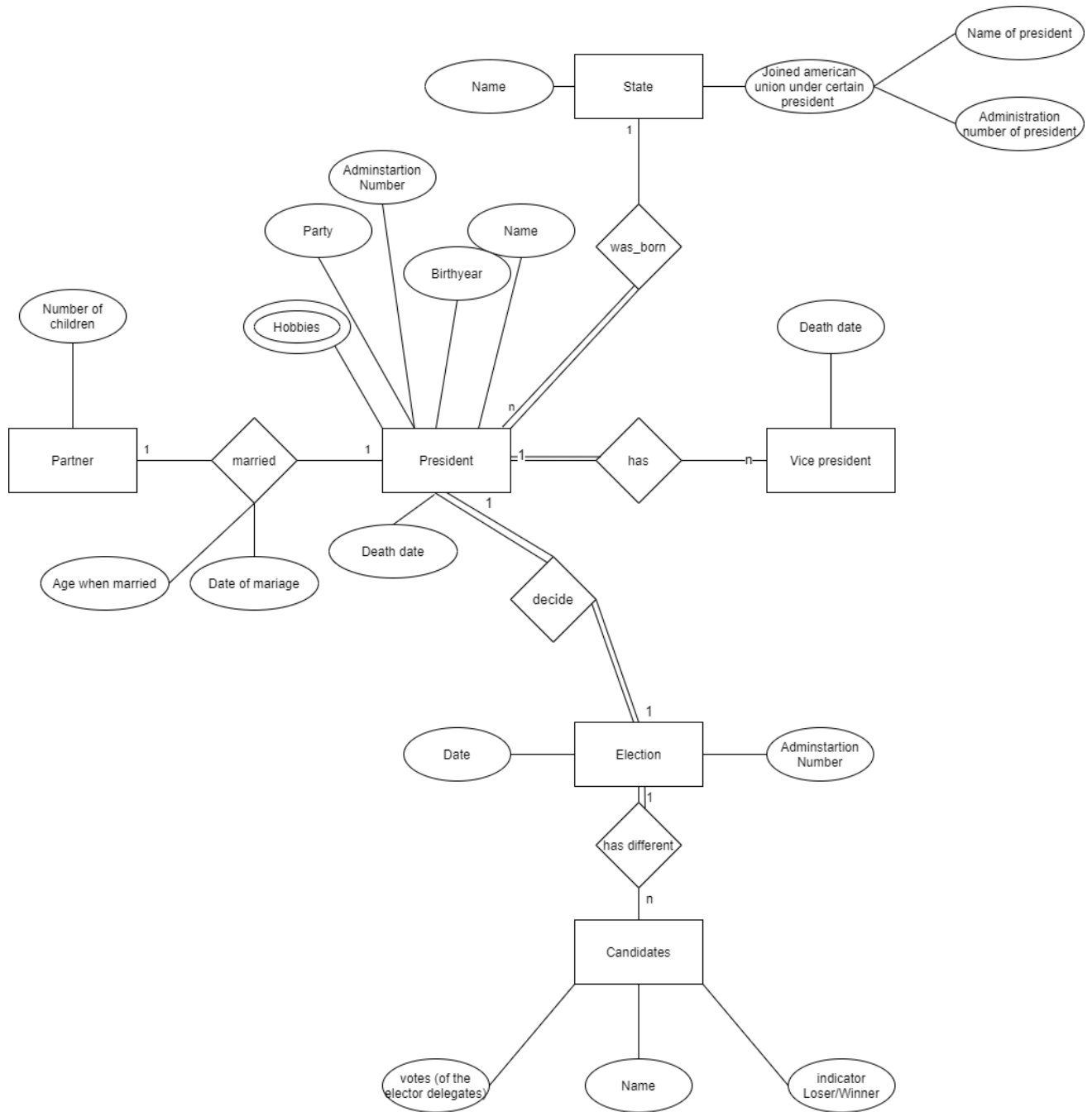
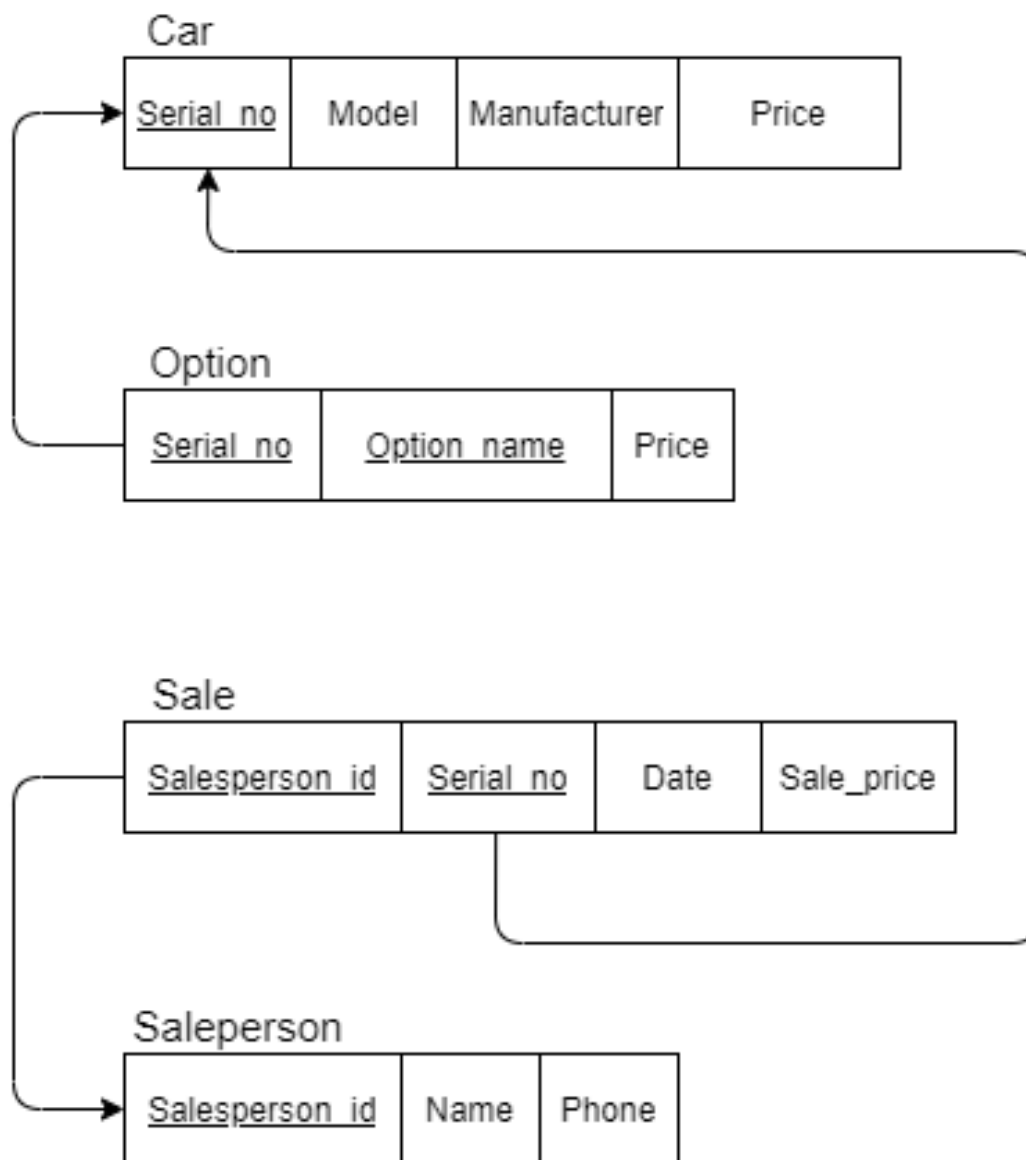


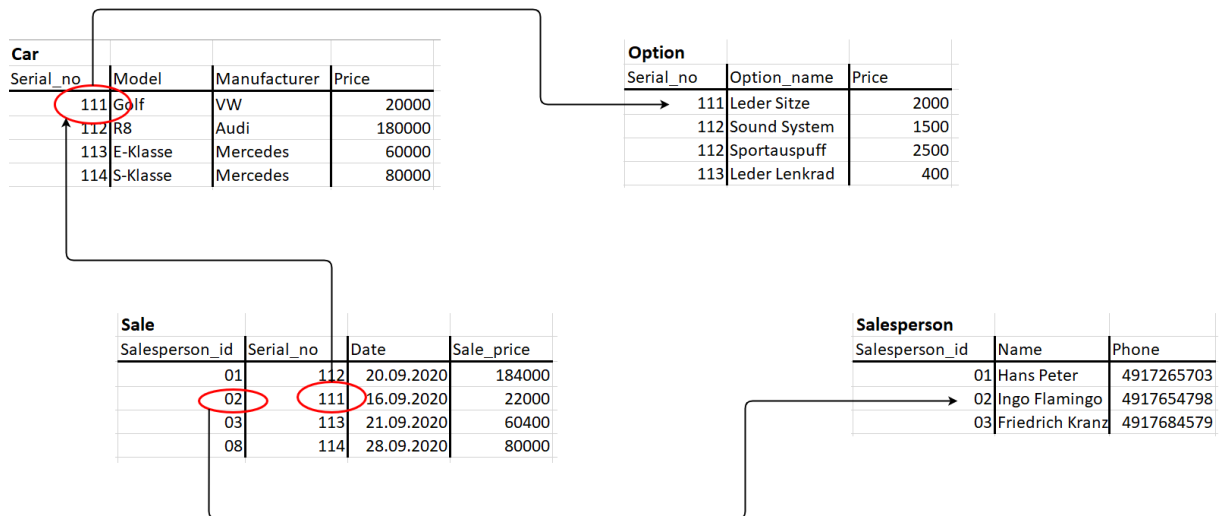
# PART 1: Entity-Relationship modeling



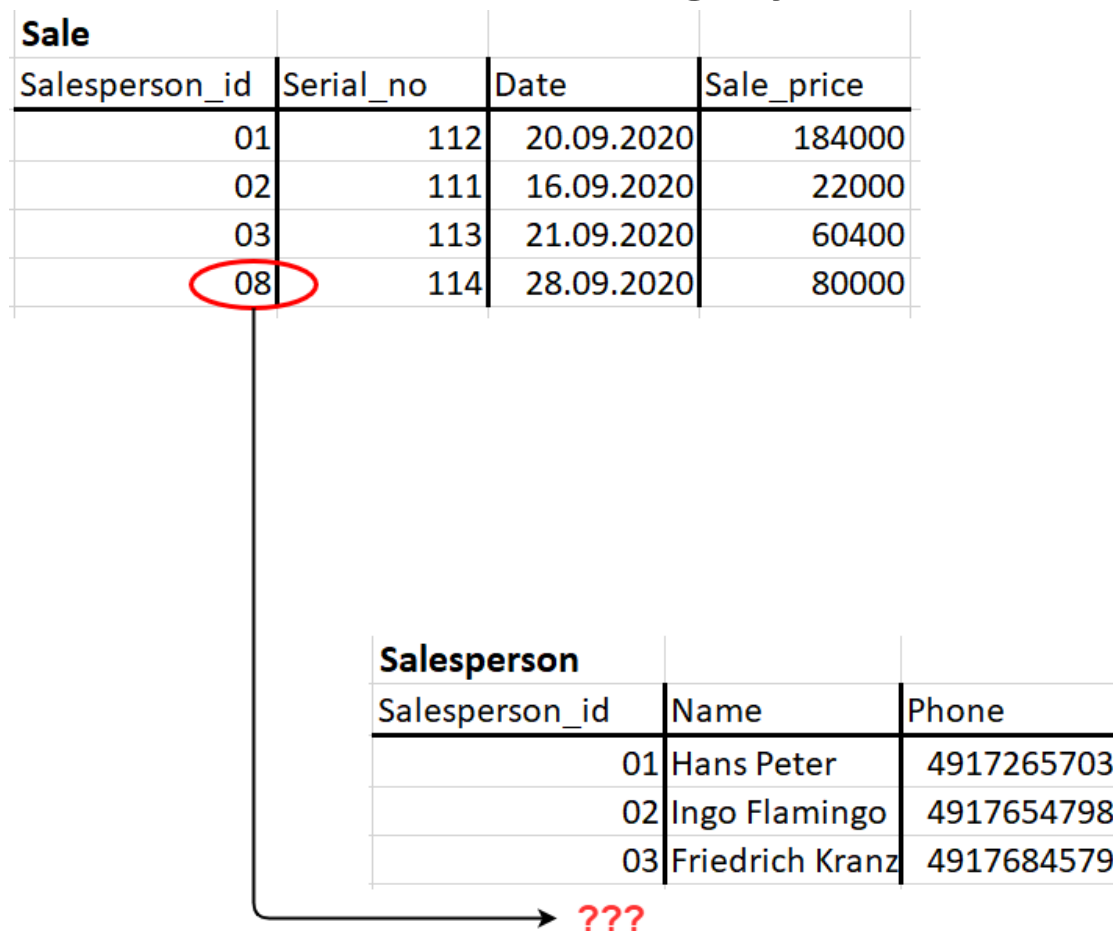
## Part 2 – Task 1



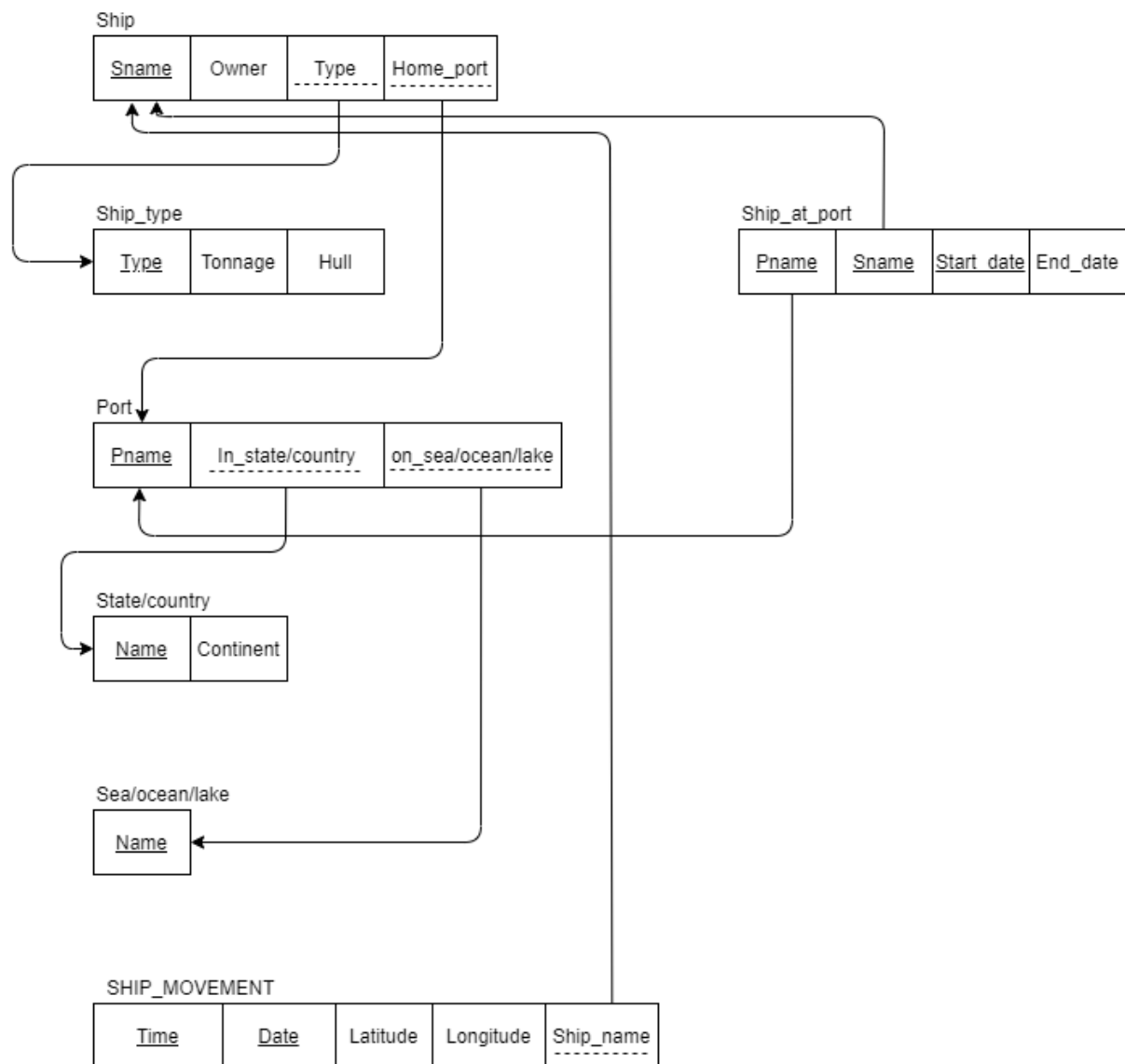
## Does not violate the referential integrity



## Violates the referential integrity



## Part 2 – Task 2



## Part 2 – Task 3

### Static constraints

#### Attribute constraints

##### President

Name cannot be not null.

Birthyear must be at least 35 years before current date.

Administration Number must be a positive integer.

Party cannot be not null.

##### State

Name cannot be not null.

Name of president cannot be not null.

Administration number(Joined american union under certain president) must be a positive Integer.

##### Partner

Number of children must be an integer  $\geq 0$

##### Election

Date must be before current date.

Administration number must be a positive integer.

##### Candidates

Votes must be a positive integer.

Name cannot be null.

Loser/winner must be 0 or 1..

## Relation Constraints

There can't be two candidates in one Election whose loser/winner indicator is 1.

## Database Constraints

A president can't be a vice president at the same time.

## Dynamic Constraints

When a president or vice president is still alive Death date is null, when he dies death day month and year is stated in this attribute. (Attribute constraint)

Administration number must be administration number of last president + 1. (Attribute constraint)