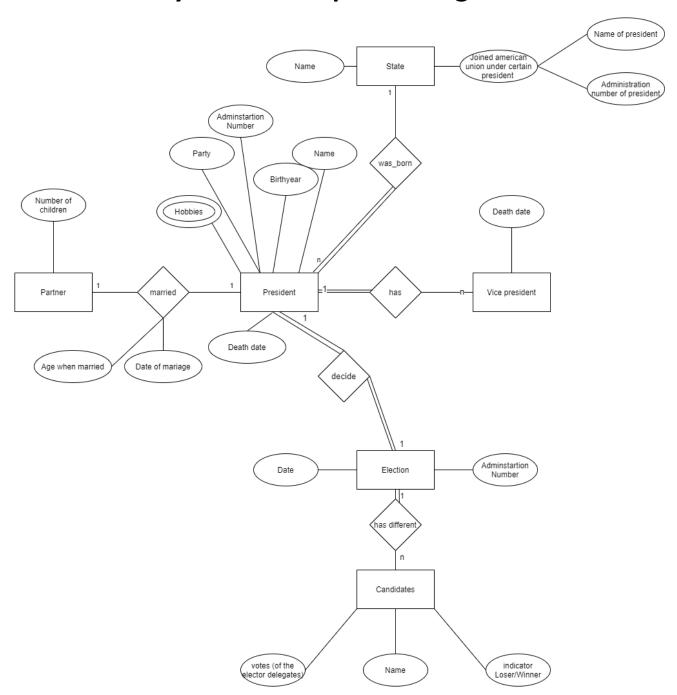
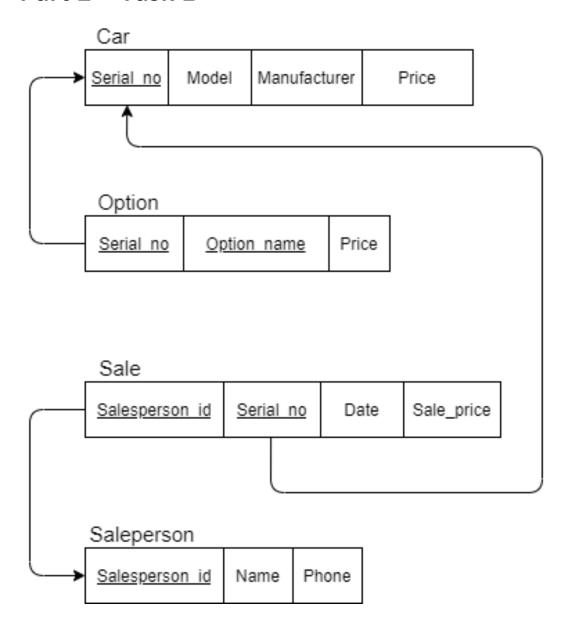
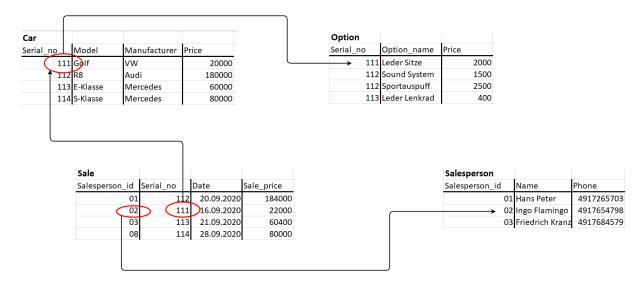
# **PART 1: Entity-Relationship modeling**



## Part 2 - Task 1



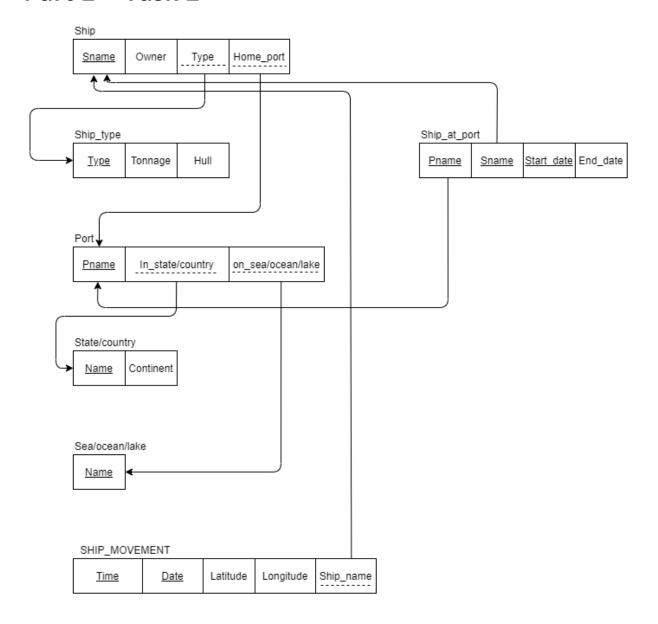
# Does not violate the referential integrity



## Violates the referential integrity

violates the referential integrity						
Sale						
Salesperson_id	Seria	l_no	Date		Sale_price	
0	1	112	20.09	.2020	184000	<u> </u>
0	2	111	16.09	.2020	22000	
0	3	113	21.09	.2020	60400	
0	8	114	28.09	.2020	80000	
		Salesp				
	Salesp		erson_id	N	lame	Phone
				01 F	lans Peter	4917265703
				02 lı	ngo Flamingo	4917654798
				03 F	riedrich Kranz	4917684579
			<b>→ ?</b> ?	??		

## 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 >= 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)