Bus trip reservation system

Team ID: 90

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Team members name:

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ERD

This is a bus reservation system wich is formed up of:

- "Passenger", each passenger has his: Gender, Age, Number, Name -including first and last names-, **unique** ID, and Address -including city, street, and home number-.

- Passenger can only reserve one trip, and a trip can be reserved by many passengers; every passenger can't buy more than a ticket and vies-versa

- "Bus", each bus has: Bus's Model, Capacity, a **unique** ID, and **unique** Plat number.

- Every trip can be accomplished by many busses and busses can achieve several trips

- "Trip", has: a **unique** number, Time -including starting and ending times-, Destination -including starting and ending points-.

- "Driver", each has: E-mail, Age, Salary, **unique** ID, Name -including first and last names-.

- Each driver can check many tickets, but every ticket can be checked by only one driver

- Every driver drives only one bus and vice versa

- "Ticket", it has: Date -including start date and expiration date-, **unique** number, and amount.

- "Dependent", has his: Name, gender, birth date, Relationship.

- Every driver may have many or one dependent, but dependents must have a driver.

- Each trip will hold many tickets -requiring its cost- while each ticket can only belong to a trip

Entity-Relationship Diagram:

- **Dependent** (weak entity) with attributes: name, gender, birth_date, relationship
- **Dependent** connects to relationship **dependents_of** (N side from Dependent, 1 side to Driver)
- **Driver** with attributes: D_E-mail, D_age, D_salary, D_id, D_name (last_name, first_name)
- **Driver** connects to **Checking** (1) to **Tickect** (N)
- **Tickect** with attributes: start_date, Ex_date, T_date, T_amount, Ticket_no
- **Tickect** connects to **Requires** (M) to **Trip** (1)
- **Requires** with attribute: cost
- **Tickect** connects to **Buying** (1) to **Passenger** (1)
- **Passenger** with attributes: p_address, P_id, P_name (first_name, Last_name), P_no, P_age, gender
- **Passenger** connects to **Reserve** (N ... 1) to **Trip**
- **Driver** connects to **Driving** (1 ... 1) to **Bus**
- **Bus** with attributes: B_model, B_capacity, B_plat_no, B_id
- **Bus** connects to **Have** (N ... M) to **Trip**
- **Trip** with attributes: T_number, T_time, T_destination, T_start_time, T_end_time, start_point, end_point

Trip

PK	T-number
	T-start-time
	T-end-time
	start-point
	end-point

Pssanger

PK	P_id
	First_name
	Last_name
	Address
	Gender
	birthDay
FK	Ticket_no
FK	T_number

Driver

PK	D_id
	First_name
	Last_name
	D_Email
	birthDay
	D-salary
FK	B_id

Ticket

PK	Ticket_no
FK1	D_id
FK2	T-number
	start-date
	Ex-date
	cost

Dependent

PK	name
	D-id
	gender
	birth-date
	Relationship

Bus

PK	B_id
	B-plat-no
	B-model
	B-capacity

Phone-number

PK	P-id
	Phone-number

Trip-Bus

PK	T-number
	B_id