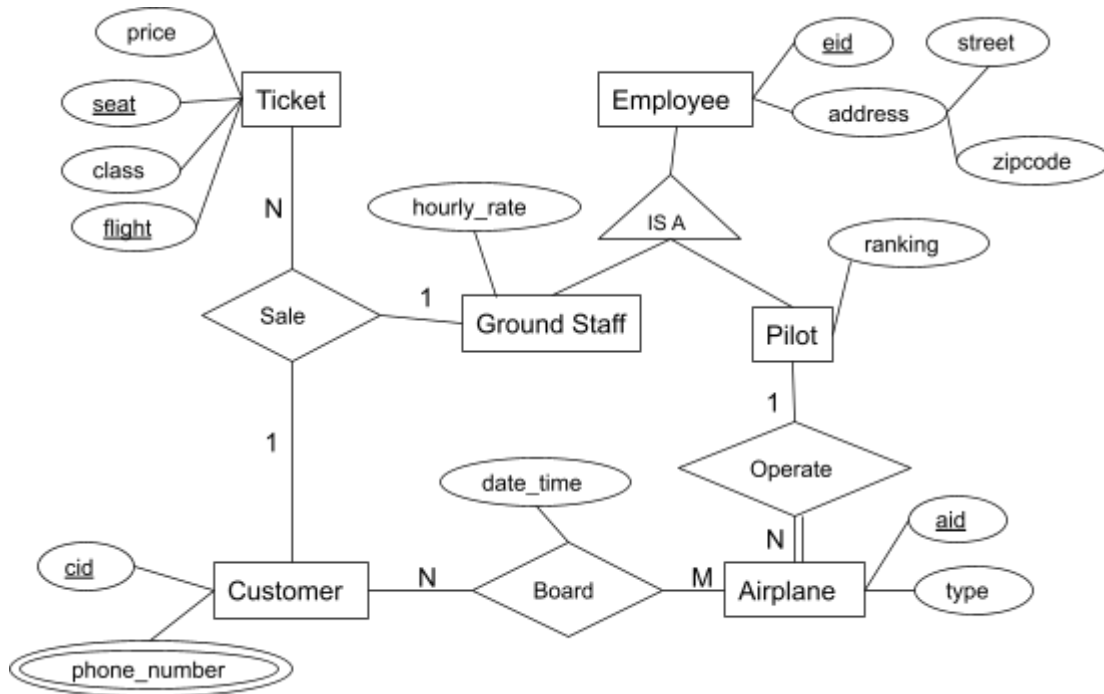


CS 122A / EECS116 - Learning Activity #1

ER Diagrams

Name: _____ netID: _____

Answer the questions below considering **ONLY** the airline E-R schema shown.



Select (T) true or (F) false for each of the following statements.

<input type="checkbox"/>	A pilot can operate multiple airplanes, but only if they are of the same type.
<input type="checkbox"/>	Every ground staff employee must sell a customer a ticket.
<input type="checkbox"/>	Two tickets can have the same seat number.
<input type="checkbox"/>	A customer can only board one airplane at a particular date and time.
<input type="checkbox"/>	A customer can board multiple airplanes.
<input type="checkbox"/>	Two pilots can live at the same address.
<input type="checkbox"/>	A pilot can have more than 1 address.
<input type="checkbox"/>	Any employee can operate an airplane.
<input type="checkbox"/>	Only an employee with an hourly_rate can sell tickets to the customers.
<input type="checkbox"/>	An employee can have both a ranking and an hourly_rate.
<input type="checkbox"/>	All airplanes with the same type must be operated by the same pilot.

Select the correct option for each of the following statements.

A customer has _____ phone number(s).

(A) any number (≥ 0) (B) 0 or 1 (C) 1 (D) 2 (E) ≥ 1

Every airplane must be operated by _____ pilot.

(A) any number (≥ 0) (B) 0 or 1 (C) 1 (D) 2 (E) > 1

Each customer can buy _____ ticket(s) from the same ground staff.

(A) any number (≥ 0) (B) 0 or 1 (C) 1 (D) 2 (E) > 1

Multiple customers with the same phone number _____ board the same airplane.

(A) must (B) can not (C) can

Fill-in the blank with the corresponding attributes for each of the following statements.

A ticket has

(list the attributes)

A pilot is uniquely identified by

An airplane is uniquely identified by

What statement is needed in the ER diagram to enforce the following constraints (consider each statement is independent):

An employee must be either Ground Staff or Pilot.

An employee can be Ground Staff and/or Pilot.