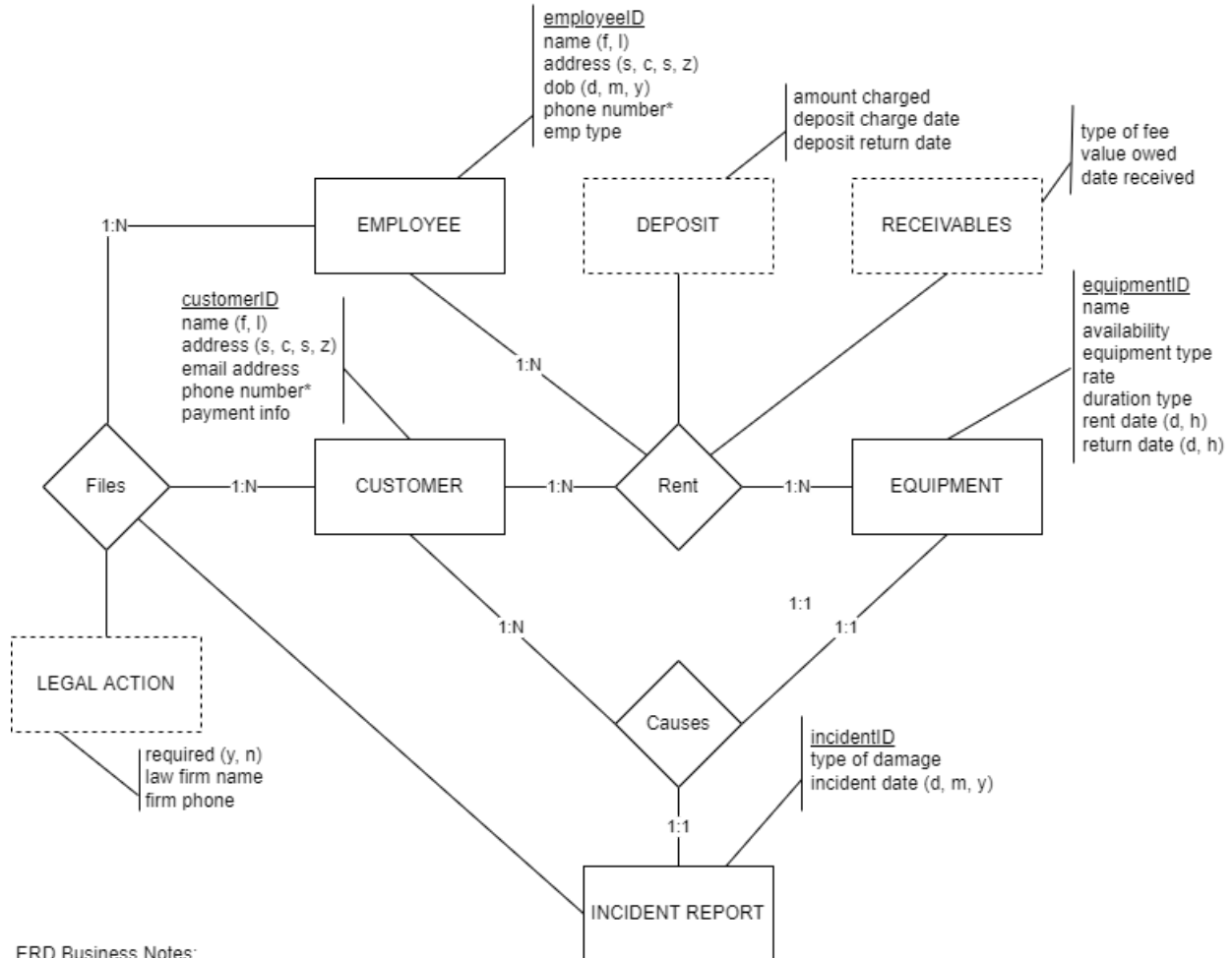


Project Steps 1 & 2: Conceptual and Logical Schema



ERD Business Notes:

-Under legal action, we didn't want to include anything overly ambiguous, such as court dates and documents required to conduct legal action that is not pertinent to business operations within the scope of this ERD. For example, litigation can occur through civil courts or legal firms themselves; this is hard to internalize within an ERD

-We wanted to create a separate entity from incident report because we wanted to include only information pertinent to what encapsulates an incident report. Legal action has its own set of attributes separate from our incident reports but relies on the incident report being filed

-We included an employee strong entity since we wanted to facilitate how the company does operations for deposits/payables as well as incident reports, assuming that the business has multiple employees. For example, the company's manager files incident reports while employees initiate the deposit and receivables from customers. This will be better exemplified when we complete conversions

-Given feedback from our mentor, we went ahead and changed attributes associated with the equipment to identify costs with duration types (days or hours) and rates

-Deposit is now changed to a weak entity since it is the result of a customer renting out equipment; it cannot stand alone

-We established one-to-one relationships between equipment and incident reports because we identified reports based on *independent* damages per equipment rented out, which inherently cannot occur more than once using this structure

## Conversions:

exampleID = primary key  
exampleID -> = foreign key

### *Strong Entities:*

equipment (id, name, availability, type, rate, duration\_type, rent\_date, return\_date)

employee (id, fname, lname, street, city, state, zipcode, dob, type)

employee\_phone (phone\_num, phone\_type, employee(id) ->)

customer (id, fname, lname, email, street, city, state, zipcode, payment\_info)

customer\_phone (phone\_num, phone\_type, customer(id) ->)

incident\_report (id, type\_of\_damage, incident\_date, customer(id) ->, equipment(id) ->)

### *Weak Entities:*

deposit (amount\_charged, deposit\_charge\_date, deposit\_return\_date, employee(id) ->, customer(id) ->, equipment(id) ->)

receivables (fee\_type, value\_owed, date\_received, employee(id) ->, customer(id) ->, equipment(id) ->)

legal\_action (required, law\_firm\_name, firm\_phone, employee(id) ->, customer(id) ->, incident(id) ->)

### *Unhandled Relationships:*

None