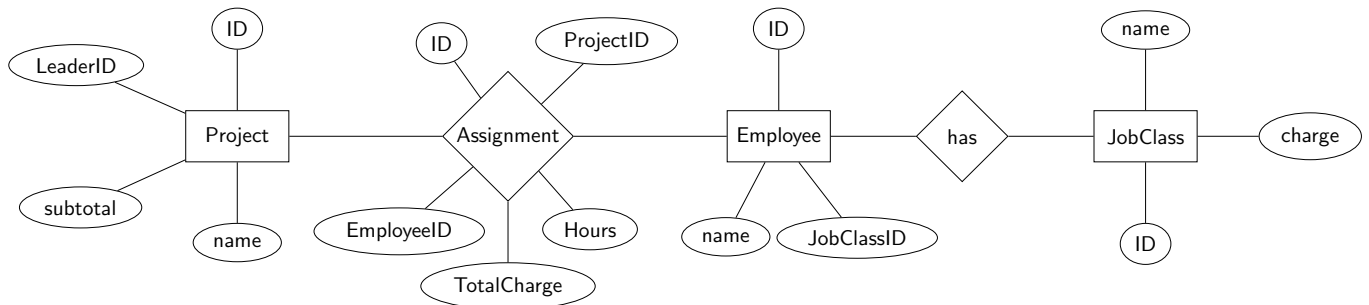


COMP3700 Activity 5

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1. Draw entity-relationship diagram



2. Convert to schema (relations with attributes and keys)

- Project (ProductID, name, subtotal, ProjectLeaderID)
- Employee (EmployeeID, name, JobClassID)
- JobClass (JobID, name, chargePerHour)
- Assignment (AssignID, ProjectID, EmployeeID, HoursBilled, TotalCharge)

3. Write SQL code to define those tables

```
CREATE TABLE Project (  
    ProjectID int NON NULL PRIMARY KEY,  
    Name varchar(100),  
    Subtotal float,  
    ProjectLeaderID int FOREIGN KEY REFERENCES Employee(EmployeeID)  
);
```

```
CREATE TABLE Employee (  
    EmployeeID int NON NULL PRIMARY KEY,  
    Name varchar(100),  
    JobClassID int FOREIGN KEY REFERENCES JobClass(JobClassID)  
);
```

```
CREATE TABLE JobClass (  
    JobClassID int NON NULL PRIMARY KEY,  
    Name varchar(100),  
    Charge float,  
);
```

```

CREATE TABLE Assignment (
    AssignID int NON NULL primary key,
    ProjectID int FOREIGN KEY REFERENCES Project(ProjectID),
    EmployeeID int FOREIGN KEY REFERENCES Employee(EmployeeID),
    Hours int,
    TotalCharge float
);

```

4. Write SQL to insert the data into those tables

```

INSERT INTO Project (ProjectID, Name, Subtotal, ProjectLeaderID)
VALUES (15, 'Evergreen', 10549.70, 105),
       (18, 'Amber Wave', 7171.47, 104),
       (22, 'Rolling Tide', 13660.10, 113),
       (25, 'Starflight', 17559.82, 101);

```

```

INSERT INTO JobClass (JobClassID, Name, Charge)
VALUES (1, 'Elec. Engineer', 84.50),
       (2, 'Database Designer', 105.00),
       (3, 'Programmer', 35.75),
       (4, 'Systems Analyst', 96.75),
       (5, 'Applications Designer', 48.10),
       (6, 'General Support', 18.36),
       (7, 'DSS Analyst', 45.95),
       (8, 'Clerical Support', 26.87);

```

```

INSERT INTO Employee (EmployeeID, Name, JobClassID)
VALUES (101, 'John G. News', 2),
       (102, 'David H. Senior', 4),
       (103, 'June E. Arbough', 1),
       :

```

```

INSERT INTO Assignment (AssignID, ProjectID, EmployeeID, Hours, TotalCharge)
VALUES (1, 15, 103, 23.8, 2011.10),
       (2, 15, 101, 19.4, 2037.00),
       :

```