

**100531488\_100548122**

**Final Project Part 1**

COMPANY(CCode, Cname, Stock\_price\*, Num\_stocks\*)

Assumption: Different companies can use the same employee and department codes. If this is an incorrect assumption we would not include CCode as a field/primary key in Department & Employee.

Explanation: We decided to maintain the stock price and number of stocks instead of the company value to ensure the auditor has an updated value. Additionally, we allow null values for stock price and number of stocks because a company could be private and not have stock options.

DEPARTMENTS(DCode, CCode, Dname)

EMPLOYEE(CCode, ID, Full\_name, Email, Role, History, Office\*, DCode, Years\_experience, salary)

Assumption: Work-from-home employees will have NULL values for the Office field in EMPLOYEE. Alternatively, if the client prefers we could use "WFH" as the data entry for the Office field. n

ROLES(CCode, Rcode, Rname)

Assumption: Different Companies have different lists of Departments and Roles. If this is an incorrect assumption we would remove CCode from DEPARTMENTS and ROLES relations.

HISTORY(CCode, ID, Role, Beginning\_date, End\_date\*)

Assumption: Employees at each company can't return to a role. If this is an incorrect assumption, we would also add Beginning\_date as a primary key.

OFFICE(CCode, OCode, Address, Country)

BADGING\_INFO(CCode, Office\_code, Employee\_code, Date, Time\_in, Time\_out\*)

Assumption: An employee can enter an office multiple times a day.

CEO(CCode, ID, Net\_wealth)

AUDITOR(AID, Aname, Aemail, Apassword)

REPORT(AID, LCode, Date, Time)

Explanation: The Time field includes a time stamp to the millisecond so the time would always be unique.

LIST(Lcode, LName, Description)

Explanation: The list is the set of report types an auditor can choose from.