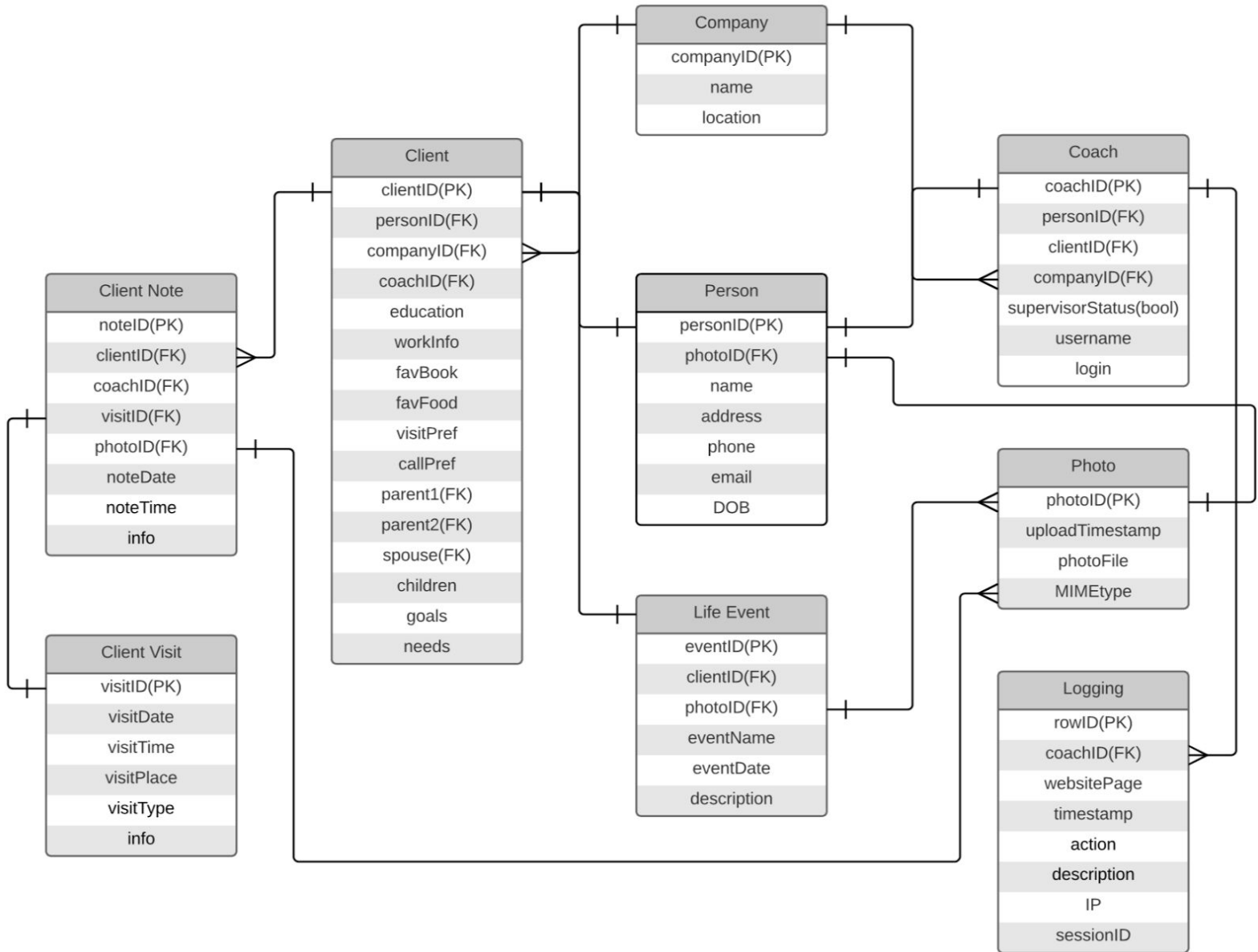


**Capping CS/IT/IS Project
CMPT 475-200**

Homework 2

Patrick Zambri, Bradford Harris, Marisa Proscia, Chris Siena, Jacob
Levinson

ER Diagram



ER Documentation

Database tables will include: Company, Person, Client, Coach, Client Note, Client Visit, Life Event, Photo and Logging. Tables that require further explanation and documentation are listed below.

Photo

- photoID - Integer, Auto Incrementing, ID to reference row
- uploadTimestamp - DateTime, when it was uploaded
- photoFile - longblob, holds raw data from the file
- MIMEtype - varchar(255), holds the file type for correctly displaying the information

Client

- education - current and past education history, including location and level
- workInfo - current and past work history, including position and income range
- favBook - client favorite books
- favFood - client favorite foods
- visitPref - best time for an at home visit
- callPref - best time for a phone call meeting
- parent1 - personID of parent1
- parent2 - personID of parent2
- spouse - personID of spouse
- children - list of personIDs
- goals - list of client goals upon entering profile information
- needs - list of client needs upon entering profile information

Client Visit

- visitType - references the type of visit, ie. phone call or in person

Company

- Used for purposes when licensing product to other companies

Coach

- supervisorStatus - boolean value to determine if a coach is a supervisor
- username - unique coach username to access online system
- password - unique coach password to access online system

Logging

- rowID - Integer, Auto Incrementing, ID to reference row
- coachID - ID to reference which coach is being logged, Integer
- websitePage - varchar(500), which page they were on when the log was entered
- timestamp - datetime, time at which the log was made
- action - varchar(150), small summary of what was attempted
- description - text, What happened with small update info
- IP - varchar(45), long enough to store what IP even if it is IPv6
- sessionID - bigint(20), the coaches sessionID for session tracking

IT Requirements

1. **Server Platform** (for each “server” required) - Ubuntu Linux
 - 1.1. Physical system requirements
 - 1.1.1. Storage capacity - Be able to handle 10 million users.
 - 1.1.2. Speed requirements / response time parameters - none specified/ask client?
 - 1.1.3. Scalability plans - Again, be able to grow to handle 10 million users in 2 years.
 - 1.1.4. Be able to handle 1,000 concurrent users.
 - 1.2. Virtual system requirements
 - 1.2.1. OS to be supported - ubuntu
 - 1.2.1.1. System will be designed for users on both mobile and desktop
 - 1.2.1.2. The system will be contained in a web browser so users can access it on any platform
 - 1.2.2. Number of images expected - One
 - 1.2.3. Compatible with LAPP server
 - 1.3. Connectivity
 - 1.3.1. Network considerations - security, uptime, accessibility, private cloud over public cloud
 - 1.3.2. Interconnection to what other systems - database & server connections
2. **Reliability**
 - 2.1. Service Level Agreements
 - 2.1.1. Uptime requirements - 99.99%, no specific requirement but we are aiming for system to be up at all times
 - 2.1.2. Response time requirements - Minimal response time for efficient use
3. **Recoverability**
 - 3.1. Where are things backed up? How often?
 - 3.1.1. Data is backed up to a secondary server.
 - 3.1.2. Data is backed up once a day, later in the evening to avoid backup complications while users are using the system
 - 3.1.3. Super Admins have access to this data
 - 3.2. Access to backups? - Super admins?
 - 3.3. What data is transient and doesn't need to be stored longer term?
 - 3.3.1. All data should be stored long term, unless a Super Admin removes it.
4. **Security and Privacy**
 - 4.1. Database
 - 4.1.1. Access controls by userid / roles
 - 4.1.1.1. Each user will have a unique username and password
 - 4.1.1.2. Each user will only be able to view information they have direct access to
 - 4.1.2. Update vs. Access
 - 4.1.2.1. Basic User can access and update client information
 - 4.1.2.2. Supervisor can access and update client information and coach information
 - 4.1.2.3. Super Admin can access and update client information, coach information and update/make changes to system.
 - 4.2. Account information
 - 4.2.1. User data

- 4.2.1.1. Personal / registration - Client profile information will be gathered after an in person, or phone interview with a coach.
 - 4.2.1.2. All users will have a profile with personal information and notes. These profiles will include images.
 - 4.2.2. FERPA/Privacy considerations
 - 4.2.2.1. FERPA Considerations
 - 4.2.2.1.1. Ensure any educational information is kept confidential
 - 4.2.2.1.2. Client will sign documentation to ensure coach is allowed access to educational information
 - 4.2.2.2. Passwords with requirements such as special characters for user access
 - 4.2.2.3. Antivirus software
 - 4.2.2.4. Secure wireless network
 - 4.2.2.5. Must change passwords every 90 days to boost security
- 4.3. Admin access controls
 - 4.3.1. Adding new users, deleting old - Adding/deleting/reassigning coaches.
 - 4.3.2. One super admin per company to oversee entire system
 - 4.3.3. Access to backup data
 - 4.3.4. Choosing primary and secondary colors of their company site?
- 5. **Maintenance**
 - 5.1. Planned down time requirements
 - 5.1.1. Database maintenance
 - 5.1.1.1. Weekly-Bi Weekly database maintenance/upkeep
 - 5.1.1.2. Major maintenance / updates on an as needed basis
 - 5.1.2. Times of year when IT does maintenance
 - 5.1.2.1. Weekly - Bi Weekly Minor Updates and bug fixes
 - 5.1.2.2. Monthly - Bi Monthly Major updates and bug fixes
 - 5.1.2.3. Maintenance/Updates will be scheduled during companies off periods, avoiding peak times and service outages.
 - 5.1.3. Times of year when the systems are not available?
 - 5.1.3.1. System should be available all year round, as biweekly and bimonthly updates are designed to ensure proper operation.