**Serenity Springs Day Spa ER Diagram**

**Entities**

Clients

Employees

Schedule

Appointments

Bill

Services

**Attributes**

Entity -> Clients

**Attributes**: Client\_ID, Client\_Name, Client\_PhoneNum, Client\_Address, Client\_Email

Entity -> Employees

**Attributes**: Emp\_ID, Emp\_Name, Emp\_PhoneNum, Emp\_Address, Emp\_Email, Job\_Title, Pay\_Rate

Entity -> Appointments

**Attributes**: Appt\_ID, Client\_Name, Emp\_Name, Appt\_Date, Appt\_Time

Entity -> Schedule

**Attributes**: PunchIn\_ID, Emp\_Name, Time\_In, Time\_out

Entity -> Bill

**Attributes**: Bill\_ID, Service\_ID, Total, Appt\_Date

Entity -> Services

**Attributes**: Services\_ID, Price, Service\_Type

**Relationships**

Clients and Services => One – to – Many (Choose)

Clients and Appointments => One – to – Many (Visit)

Clients and Bill => One – to – Many (Pay)

Employees and Services => One – to – Many (Specialty)

Employees and Schedule => One – to – Many (Shift)

**Relational Schema**

1a. **Entities** -> Clients, Employees, Schedule, Appointments, Bill, Services

**Clients** (Client\_ID, Client\_Name, Client\_PhoneNum, Client\_Address, Client\_Email)

**Employees** (Emp\_ID, Emp\_Name, Emp\_PhoneNum, Emp\_Address, Emp\_Email, Job\_Title, Pay\_Rate)

**Appointments** (Appt\_ID, Client\_Name, Emp\_Name, Appt\_Date, Appt\_Time)

**Schedule** (PunchIn\_ID, Emp\_Name, Time\_In, Time\_out)

**Bill** (Bill\_ID, Service\_ID, Total, Client\_ID, Appt\_Date)

**Service** (Service\_ID, Price, Service\_Type)

1b. **Strong Entities that are Subtypes**

1c. **No weak entities**

2a. One – to – One relationships -> **None**

2b. One – to – Many relationships -> **Services, Appointments, Bill, Schedule**

**Services** (Services\_ID, Price, Service\_Type, *Client\_ID†*)

**Appointments** (Appt\_ID, Client\_Name, Emp\_Name, Appt\_Date, Appt\_Time, *Client\_ID†*)

**Bill** (Bill\_ID, Service\_ID, Total, Client\_ID, Appt\_Date, *Client\_ID†*)

**Schedule** (PunchIn\_ID, Emp\_Name, Time\_In, Time\_out, Emp\_ID*†*)

2c. Many – to – many relationships **None**

**Final Schema**

**Clients** (Client\_ID, Client\_Name, Client\_PhoneNum, Client\_Address, Client\_Email)

**Employees** (Emp\_ID, Emp\_Name, Emp\_PhoneNum, Emp\_Address, Emp\_Email, Job\_Title, Pay\_Rate)

**Services** (Services\_ID, Price, Service\_Type, *Client\_ID†*)

**Appointments** (Appt\_ID, Client\_Name, Emp\_Name, Appt\_Date, Appt\_Time, *Client\_ID†*)

**Bill** (Bill\_ID, Service\_ID, Total, Appt\_Date, *Client\_ID†*)

**Schedule** (PunchIn\_ID, Emp\_Name, Time\_In, Time\_out, Emp\_ID*†*)

**Keys and Foreign Keys**

Underline = Primary Key

*Italics†*  = Foreign Key