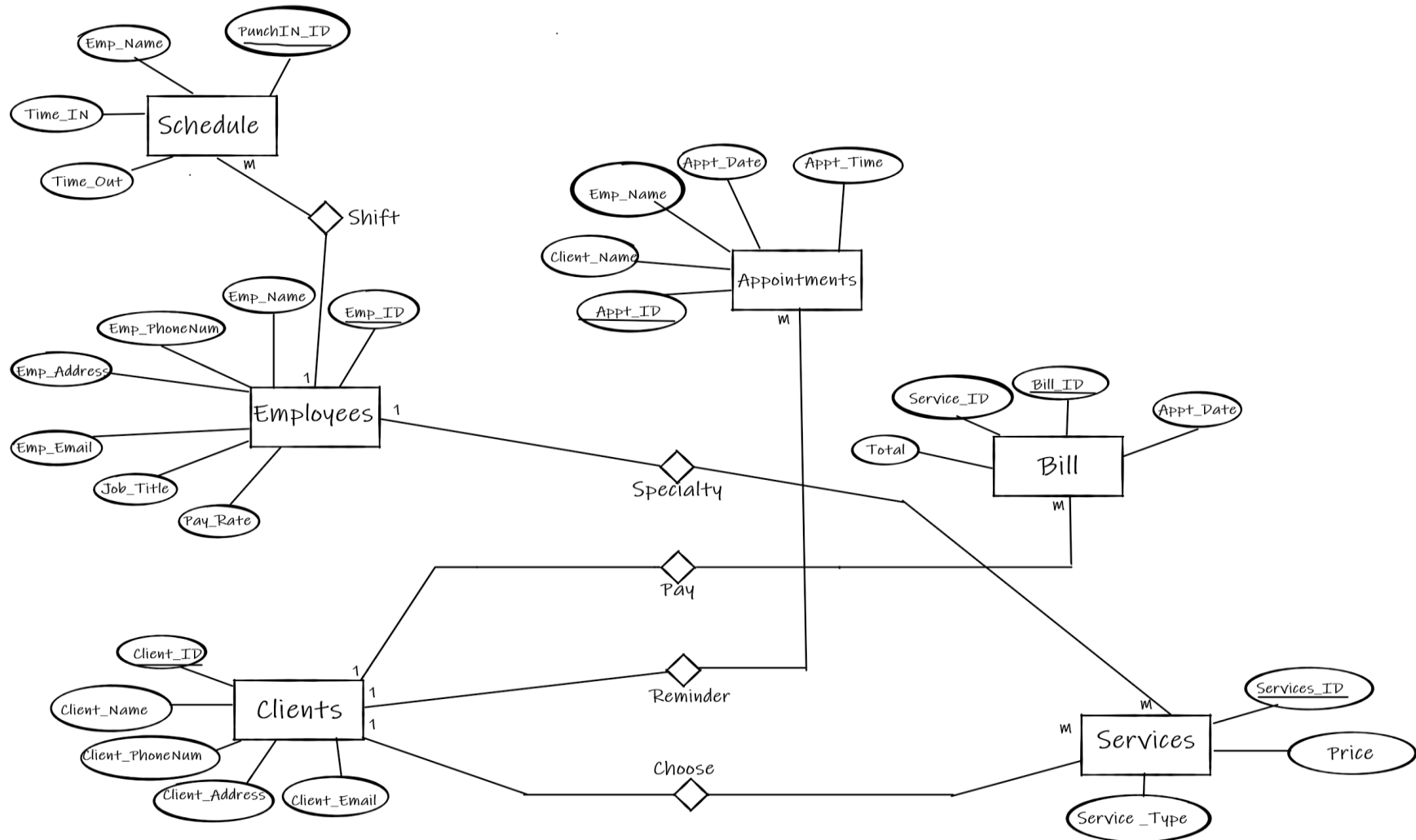Brayan Chacha
Assignment04
Professor Lehuta
Due 9/30/2020

Serenity Springs Day Spa ER Diagram

Brayan Chacha
Assignment04
Professor Lehuta
Due 9/30/2020

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

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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)

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Relational Schema

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

 Clients (<u>Client_ID</u>, Client_Name, Client_PhoneNum, Client_Address, Client_Email)

 Employees (<u>Emp_ID</u>, Emp_Name, Emp_PhoneNum, Emp_Address, Emp_Email, Job_Title, Pay_Rate)

 Appointments (<u>Appt_ID</u>, Client_Name, Emp_Name, Appt_Date, Appt_Time)

 Schedule (<u>PunchIn_ID</u>, Emp_Name, Time_In, Time_out)

 Bill (<u>Bill_ID</u>, Service_ID, Total, Client_ID, Appt_Date)

 Service (<u>Service_ID</u>, 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 (<u>Services_ID</u>, Price, Service_Type, *Client_ID†*)

 Appointments (<u>Appt_ID</u>, Client_Name, Emp_Name, Appt_Date, Appt_Time, *Client_ID†*)

 Bill (<u>Bill_ID</u>, Service_ID, Total, Client_ID, Appt_Date, *Client_ID†*)

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Schedule (<u>PunchIn_ID</u>, Emp_Name, Time_In, Time_out, *Emp_ID†*)

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

Final Schema

Clients (<u>Client_ID</u>, Client_Name, Client_PhoneNum, Client_Address, Client_Email)

Employees (<u>Emp_ID</u>, Emp_Name, Emp_PhoneNum, Emp_Address, Emp_Email, Job_Title, Pay_Rate)

Services (<u>Services_ID</u>, Price, Service_Type, *Client_ID†*)

Appointments (<u>Appt_ID</u>, Client_Name, Emp_Name, Appt_Date, Appt_Time, *Client_ID†*)

Bill (<u>Bill_ID</u>, Service_ID, Total, Appt_Date, *Client_ID†*)

Schedule (<u>PunchIn_ID</u>, Emp_Name, Time_In, Time_out, *Emp_ID†*)

Keys and Foreign Keys

<u>Underline</u> = Primary Key

Italics†   = Foreign Key