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Enrollment: 01-135241-045

Assignment #1

Case Study I =

Entities =

- Branch.
- Session Attendance.
- Program Enrollment.
- Members.
- Payments.
- Trainers.
- Program.
- Training Session

Attributes =

(Strong)

- Branch =
 - Branch ID (Primary Key)
 - Branch Name.
 - Location.
 - Contact Number.
 - Monthly Membership.

• Trainer =

- Trainer Name
- Trainer ID (Primary Key)
- Specialization
- Branch ID (Foreign Key)
- Number.
- Salary
- Joining Date.

- Member =

- MemberID (Primary Key)
- Name - Contact
- Age - M-Start Date
- Gender - Membership Type
- Membership Expiry - Payment Status.
- BranchID (Foreign Key)

- Session =

- SessionID (Primary Key)
- SessionDate - Time
- Duration - TrainerID (Foreign Key)

- Program =

- ProgramID (Primary Key)
- Title - Difficulty level.
- Duration Weeks - Fee
- BranchID (Foreign Key).

- Payment =

- PaymentID (Primary Key)
- PaymentDate - Amount
- Method - Transaction Ref- Number
- MemberID (Foreign Key)

(Weak)

- Session Attendance =

- AttendanceID (P. Key)
- MemberID (F. Key) - SessionID (F. Key).

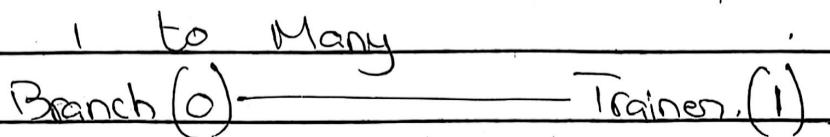
DATE: / /

- Program Enrollment =
 - EnrollmentID (P.Key)
 - MemberID (F.Key) - ProgramID (F.Key)

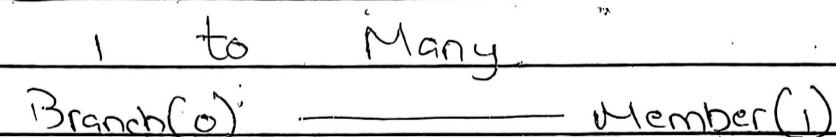
Relationships and

Cardinalities =

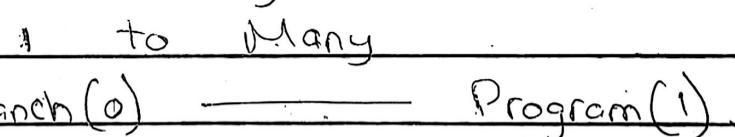
① Branch - Trainer =



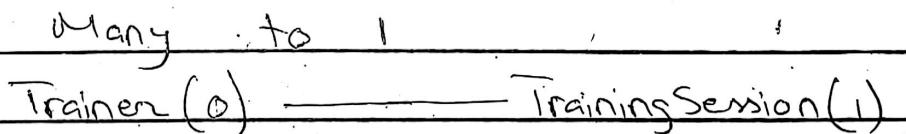
② Branch - Member =



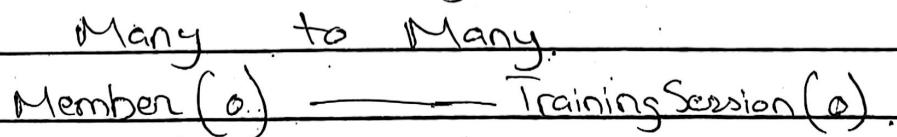
③ Branch - Program =



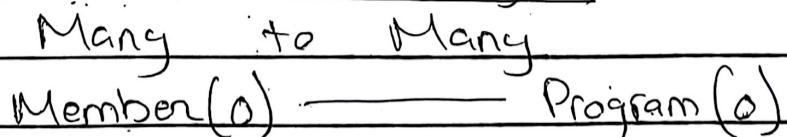
④ Trainer - Training Session =



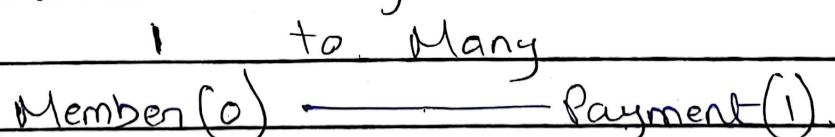
⑤ Member - Training Session =

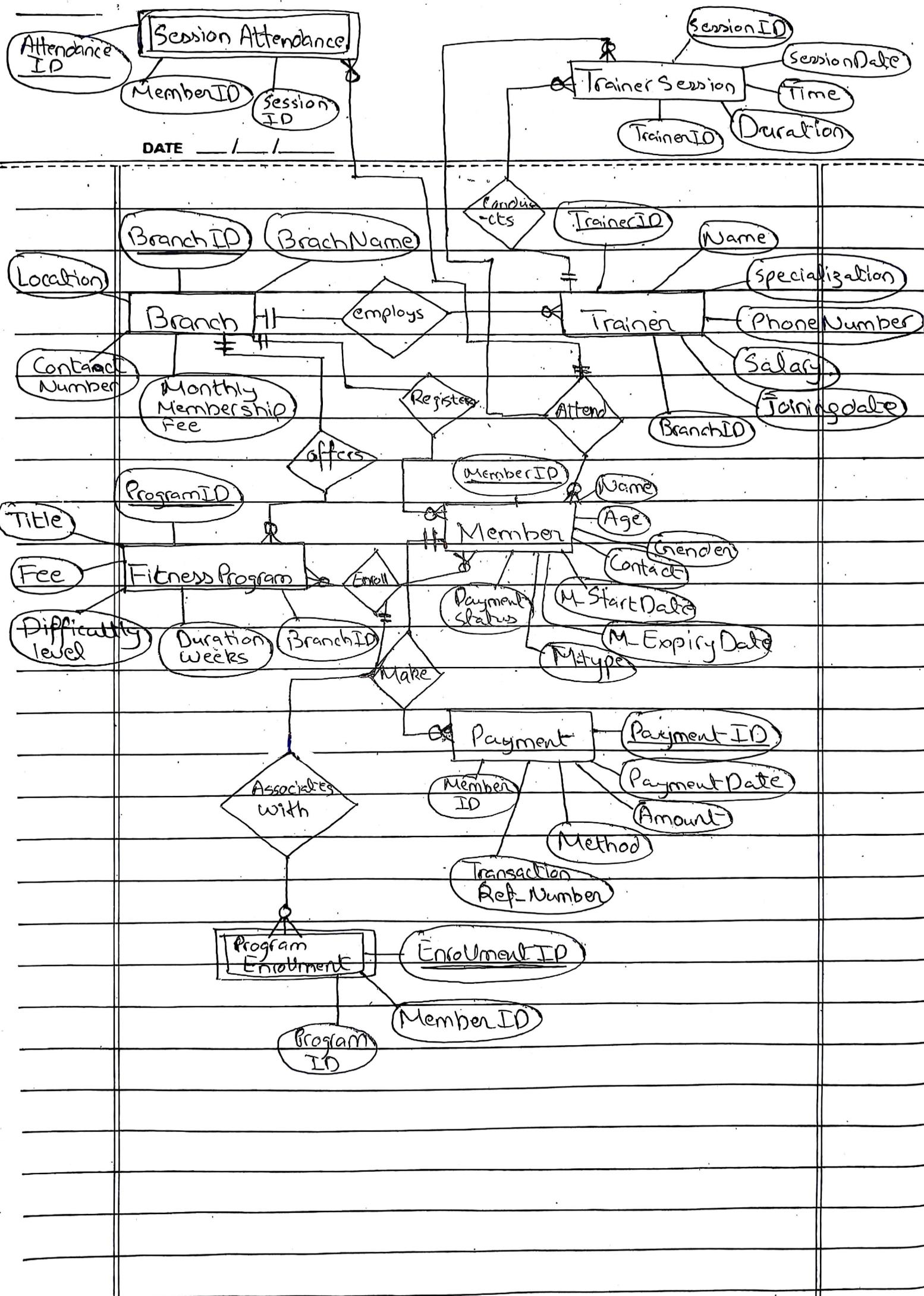


⑥ Member - Fitness (Program) =



⑦ Member - Payment =





Case Study 2 =

- Entities and their Attributes =

① Location = (Strong)

- LocationID (Unique)
- LocationName
- ContactInfo
- Address
- TotalCapacity
- City
- ManagerName

② Workspace = (Strong)

- WorkspaceID (Unique)
- LocationID (Foreign)
- SeatingCapacity
- WorkspaceType
- FloorNumber
- AvailabilityStatus
- RentalType
- RentalRate

③ Client = (Strong)

- ClientID (Unique)
- ClientName
- CompanyName
- Email_C
- PhoneNum_C
- RegistrationDate
- BillingAddress
- ClientType

④ Employee = (Weak)

- EmployeeID (Unique)
- ClientID (Foreign)
- EmployeeName
- Address
- Email_E
- PhoneNum_E

⑤ Reservation = (Strong)

- ReservationID (Unique)
- ClientID (Foreign)
- WorkspaceID (Foreign)
- Bookdate
- Starttime
- Endtime
- TotalCost
- BookingStatus

⑥ Services = (Strong)

- ServiceID (Unique)
- Name
- Price
- Description.

⑦ ReservationAddService = (Associative) (Weak)

- Service ID (Foreign)
- Reservation ID (Foreign)

⑧ Payment = (Strong)

- PaymentID (Unique)
- Payment Date
- Amount paid
- ReservationID (Foreign)
- Payment Method.
- Confidential Details

⑨ Refunds = (Weak)

- RefundID (Unique)
- Date
- PaymentID (Foreign)
- Refundamount
- Approval Status.

⑩ Maintenance = (Strong)

- MaintenanceID (Unique)
- Issue Description
- Completion Status
- Maintenance Date
- Technician Assigned
- WorkspaceID (Foreign)

- Relationships and Cardinalities =

① Location

- Workspace =

- One to Many.
- (0) — (1).

② Client

- Employee =

- One to Many.
- (0) — (1)

④ Client — Reservation =

- One to Many
- (0) — (1).

⑤ Workspace — Reservation =

- One to Many
- (0) — (1).

⑥ Reservation — Reservation Service = ^{Add}

- One to Many
- (0) — (1).

⑦ Service — Reservation Add Service =

- One to Many.
- (0) — (1).

⑧ Reservation — Payment =

- One to Many.
- (0) — (1).

⑨ Payment — Refund =

- One to One.
- (0) — (1)

⑩ Workspace — Maintenance =

- One to Many
- (0) — (1).

