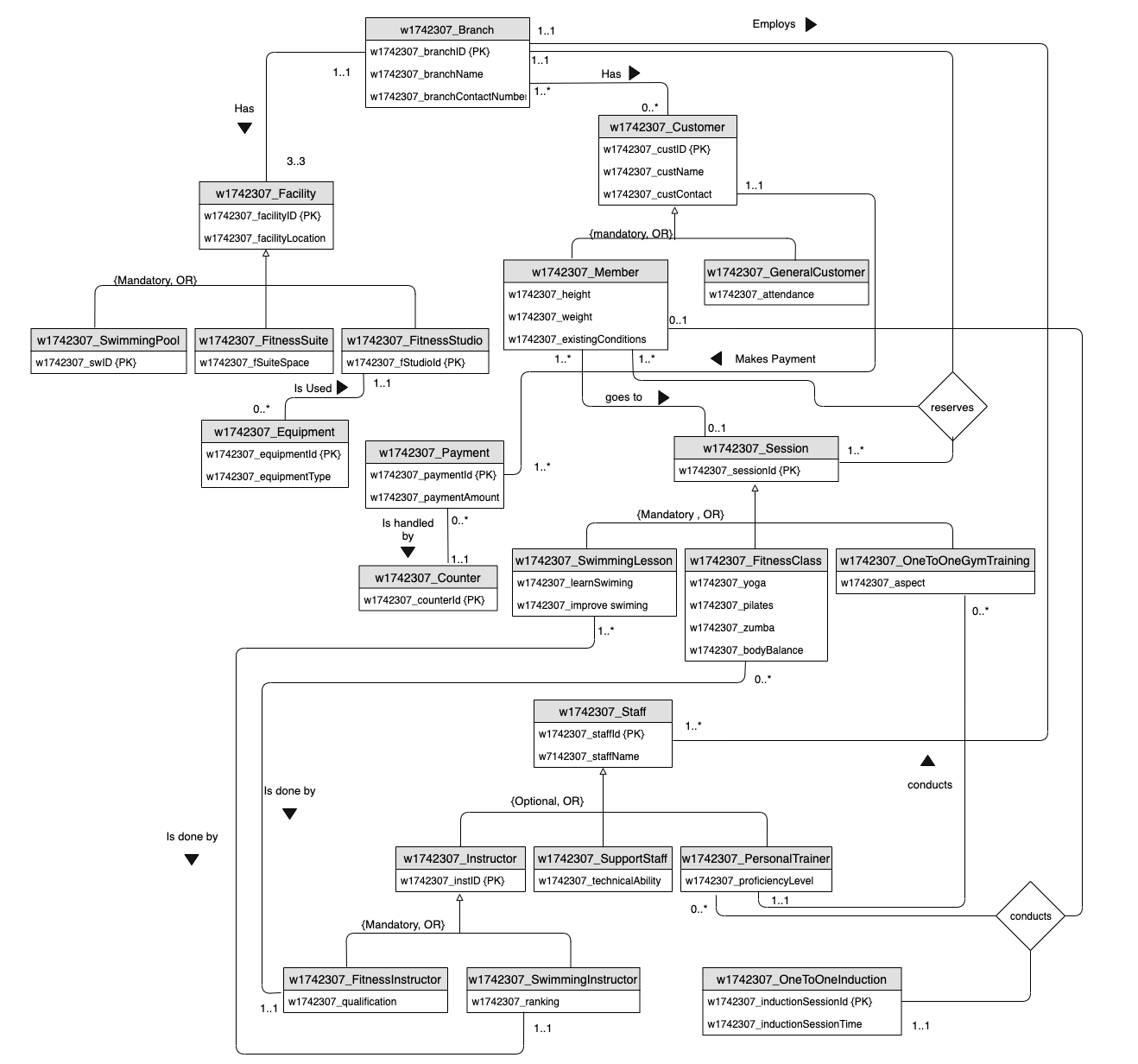


page1image28575568

Database Systems

5COSC008C.1

Part A



2.

|  |  |
| --- | --- |
| Entity name | Description |
| w1742307\_Branch | To store data of the branch. |
| w1742307\_Facility | To store information about the facilities in a branch. |
| w1742307\_Equipment | To store information about the equipments. |
| w1742307\_Customer | To store information about the customers. |
| w1742307\_Payment | To store information about the payment that the customers make. |
| w1742307\_Session | To store information about the sessions held at the branch. |
| w1742307\_Staff | To store information about the staff. |
| w1742307\_OneToOneInduction | To store induction information specific to customers such as equipment suggestion |

|  |  |  |
| --- | --- | --- |
| General entity | Specialised entity | Explanation |
| w1742307\_Facility | w1742307\_SwimmingPool |  |
|  | w1742307\_FitnessSuite |  |
|  | w1742307\_FitnessStudio |  |
| w1742307\_Customer | w1742307\_Member | Customers who purchased a membership get exclusive perks, therefore a special entity needed to store that infromation. |
|  | w1742307\_GeneralCustomer | Customers who |
| w1742307\_Session | w1742307\_SwimmingLesson |  |
|  | w1742307\_FitnessClass |  |
|  | w1742307\_OneToOneGymTraining |  |
| w1742307\_Staff | w1742307\_Instructor |  |
|  | w1742307\_SupportStaff | Support staff have specific jobs to do |
|  | w1742307\_PersonalTrainer |  |
| w1742307\_Instructor | w1742307\_FitnessInstructor |  |
|  | w1742307\_SwimmingInstructor |  |
|  |  |  |

3.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Entity Name | Multiplicity | Relationship | Multiplicity | Entity name | Justification |
| w1742307\_  Branch | 1..1 | Has | 3..3 | w1742307\_  Facility |  |
|  |
|  |
|  |
| w1742307\_  Equipment | 0..\* | Is Used | 1..1 | w1742307\_  FitnessStudio |  |
|  |
|  |
|  |
| w1742307\_  Branch | 1..1 | Employs | 1..\* | w1742307\_  Staff |  |
|  |
|  |
|  |
| w1742307\_  Branch | 1..\* | Has | 0..\* | w1742307\_  Customer |  |
|  |
|  |
|  |
| w1742307\_  Customer | 1..1 | Makes | 1..\* | w1742307\_  Payment |  |
|  |
|  |
|  |
| w1742307\_  Member | 1..\* | Goes to | 0..1 | w1742307\_  Session |  |
|  |
|  |
|  |
| w1742307\_  Payment | 0..\* | Is handled by | 1..1 | w1742307\_  Counter |  |
|  |
|  |
|  |
| w1742307\_  FitnessClass | 0..\* | Is done by | 1..1 | w1742307\_  FitnessInstructor |  |
|  |
|  |
|  |
| w1742307\_  Swimming  Lesson | 1..\* | Is done by | 1..1 | w1742307\_  Swimming  Instructor |  |
|  |
|  |
|  |
|  |
|  |
|  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Entity Name | Multiplicity | Entity  Name | Multiplicity | Entity Name | Multiplicity | Relationship | Justification |
| w1742307\_  Branch | 1..1 | w1742307\_  Member | 1..\* | w1742307\_  Session | 1..\* | Reserves |  |
|  |
|  |
|  |
|  |
|  |
| w1742307\_  Member | 0..1 | w1742307\_  Personal  Trainer | 0..\* | w1742307\_  OneTo  One  Induction | 1..1 | Conducts |  |
|  |
|  |
|  |
|  |
|  |

4.

|  |  |  |
| --- | --- | --- |
| Entity Name | Attributes | Justification |
| w1742307\_Branch | w1742307\_branchID {PK},  w1742307\_branchName,  w1742307\_branchContactNumber |  |
| w1742307\_Facility | w1742307\_facilityID {PK},  w1742307\_facilityLocation |  |
| w1742307\_Equipment | w1742307\_equipmentId {PK},  w1742307\_equipmentType |  |
| w1742307\_Payment | w1742307\_paymentId {PK},  w1742307\_paymentAmount |  |
| w1742307\_Customer | w1742307\_custID {PK},  w1742307\_custName,  w1742307\_custContact |  |
| w1742307\_Session | w1742307\_sessionId {PK} |  |
| w1742307\_Staff | w1742307\_staffId {PK},  w1742307\_staffName |  |
| w1742307\_OneToOneInduction | w1742307\_inductionSessionId {PK},  w1742307\_inductionSessionTime |  |
| w1742307\_Counter | w1742307\_counterId {PK} |  |
| w1742307\_SwimmingPool | w1742307\_swID {PK} |  |
|  |  |  |