**NAME**

**REGISTRATION NUMBER**

**Filling data onto the table**

**Members table**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **id** | **name** | **Eq\_name** | **Equip\_id** | **membership** | **M\_id** | **street** | **trainer type** | **tel** |
| **1** | **Fred brown** | **Barbells** |  | **bronze** |  | **123 main** | **strength** | **5551239281** |
| **2** | **Melanie smith** | **elliptical** |  |  |  | **Lockey avenue** |  | **5555093936** |
| **2** | **Melanie smith** | **kettle** |  |  |  |  |  |  |
| **2** | **Melanie smith** | **Exercise ball** |  | **gold** |  |  | **strength** |  |
| **2** | **Melanie smith** |  |  | **gold** |  |  | **yoga** |  |
| **3** | **Jeff smith** | **rower** |  | **silver** |  | **Mountain Drive** | **cardio** | **5553382820** |
| **3** | **Jeff smith** | **treadmill** |  | **silver** |  | **Oak m** | **cardio** |  |
| **4** | **Tamara Rowley** | **Recumbent bike** |  | **bronze** |  | **Friendship loop** | **yoga** | **5558388330** |
| **5** | **Jenifer Walters** | **elliptical** |  | **bronze** |  | **Stone Lane** | **cardio** | **5552822820** |
| **6** | **Fred Brown** | **Rower** |  |  |  |  |  |  |
| **6** | **Fred Brown** | **Recumbent bike** |  | **silver** |  | **Grand Pinen Dr** | **None** | **5558228809** |

**Membership table**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **id** | **No\_of\_trainers** | **Del\_stats** | **type** | **Trainer\_id** | **No trainers** | **cost** |
| **1** | **3** | **free** | **gold** |  | **2** |  |
| **2** |  | **free** | **silver** |  | **1** | **25** |
| **3** |  |  |  |  | **1** |  |

**Trainers table**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ID** | **type** | **name** | **position** | **Master type** | **Member\_id** |
| **1** | **strength** | **molly** | **cardio** | **yoga** |  |
| **1** | **strength** | **molly** | **cardio** | **yoga** |  |
|  |  | **James** | **strength** | **strength** |  |
|  |  | **Kevin** |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  | **Shawn** | **cardio** |  |  |
|  |  | **Amelia** | **cardio** |  |  |
|  |  | **Sasha** | **yoga** |  |  |
|  |  | **brain** |  |  |  |

**Equipment table**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| id | name | type | Member\_id | Equipment id | count |
| 1 | **Barbell set** |  | **1** | **3** | **10** |
|  |  |  | **2** | **2** |  |
|  |  |  | **3** | **1** |  |
| 2 | **rower** |  |  |  | **3** |
| 3 | **Recumbent bike** |  |  |  | **3** |
| 4 | **Treadmill** |  |  |  | **3** |
| 5 | **Elliptical** |  |  |  | **3** |
| 6 | **Keebler sets** |  |  |  | **10** |
| 7 | **Exercise balls** |  |  |  | **10** |

**QUESTION 2**

**FIRST NORMAL FORM**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| id | name | Eq\_name | membership | M\_id | street | trainer type | tel |
| 1 | **Fred brown** | **barbells** | **bronze** |  | **123 main** | **strength** | **5551239281** |
| 2 | **Melanie smith** | **elliptical** |  |  | **Lockey avenue** |  | **5555093936** |
| 3 | **Jeff smith** | **rower** | **silver** |  | **Mountain Drive** | **cardio** | **5553382820** |
| 4 | **Tamara Rowley** | **Recumbent bike** | **bronze** |  | **Friendship loop** | **yoga** | **5558388330** |
| 5 | **Jenifer Walters** | **elliptical** | **bronze** |  | **Stone Lane** | **cardio** | **5552822820** |
| 6 | **Fred Brown** | **Recumbent bike** | **silver** |  | **Grand Pinen Dr** | **None** | **5558228809** |

**QUESTION 3**

Part of the issue identified is part of the primary key of a row becomes null when the data are deleted, forcing you to remove the entire row. The result of a deletion anomaly is the loss of data that you would like to keep and maintain

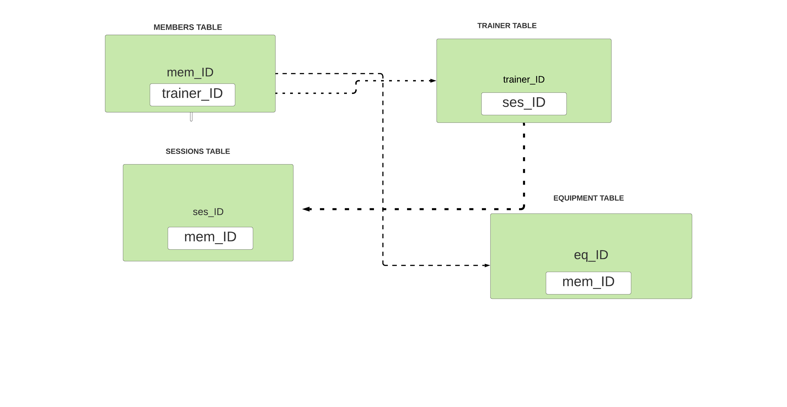
|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **id** | **name** | **Eq\_name** | **membership** | **street** | **trainer type** | **tel** |
| **1** | **Fred brown** | **Barbells** | **bronze** | **123 main** | **strength** | **5551239281** |
| **3** | **Jeff smith** | **rower** | **silver** | **Mountain Drive** | **cardio** | **5553382820** |
| **4** | **Tamara Rowley** | **Recumbent bike** | **bronze** | **Friendship loop** | **yoga** | **5558388330** |
| **5** | **Jenifer Walters** | **elliptical** | **bronze** | **Stone Lane** | **cardio** | **5552822820** |
| **6** | **Fred Brown** | **Recumbent bike** | **silver** | **Grand Pinen Dr** | **None** | **5558228809** |

**QUESTION 4**

Most of the key issues identified in second normal form have already been identified .All primary keys are now unique and can be used to reference the members table as below:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **id** | **name** | **Eq\_name** | **membership** | **street** | **trainer type** | **tel** |
| **1** | **Fred brown** | **Barbells** | **bronze** | **123 main** | **strength** | **5551239281** |
| **3** | **Jeff smith** | **rower** | **silver** | **Mountain Drive** | **cardio** | **5553382820** |
| **4** | **Tamara Rowley** | **Recumbent bike** | **bronze** | **Friendship loop** | **yoga** | **5558388330** |
| **5** | **Jenifer Walters** | **elliptical** | **bronze** | **Stone Lane** | **cardio** | **5552822820** |
| **6** | **Fred Brown** | **Recumbent bike** | **silver** | **Grand Pinen Dr** | **None** | **5558228809** |

**QUESTION FIVE**

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