

Fatima Jinnah Women University, Rawalpindi

“ASSIGNMENT #2”

COURSE:

DATABASE

SUBMITTED TO:

MAM IRUM MATLOOB

SUBMITTED BY:

LAIBA SOHAIL (2021-BSE-016)

NEHA AMJAD (2021-BSE-024)

TANZEELA ASGHAR (2021-BSE-032)

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SECTION:

A

DATE:

18TH APRIL 2023

"ERD OF TRAINS MANAGEMENT SYSTEM"

Entities And Attributes:

Following are the entities and their respective attributes of the trains management system:

1. **Train:** train_ID, year built, train type, manufacturer, capacity
2. **Incidents:** incident_ID, train_ID, route_ID, incident type, incident date, description
3. **Train Components:** component_ID, train_ID, component type, manufacturer, installation date
4. **Train Schedule:** schedule_ID, train_ID, route_ID, arrival time, departure time
5. **Train Route:** route_ID, train_ID, origin station, distance_ID, destination station

Relationship Between These Entities:

Following are the relationship that exists between these entities:

1. Train **Happens** Incidents: train has one to many relationship with incidents and one train is mandatory for a incident to happen.
2. Train **Uses** Train Components: train has one to many relationship with train Components as one train is manufactured using many components. A train is mandatory for these components.
3. Train **Has** Train Schedule: train has one to one relationship with train schedule. For a schedule, it is mandatory to have a one train.
4. Train **Travel Through** Train Route: train has one to many relationship with train route. As a single train can have multiple or many destination routes. For a train route, a train is mandatory.

ERD:

