**DBMS Project – Airplane Crash (Module 1)**

* **Description**

**Goal**: We are going to implement the database that has only one Airplane crash and among the crash which passengers have been survived.

* For the same, we have designed a simple database AirplaneCrash (AC) which is a logical model as of now. As we move forward, we might need some changes while working with physical model.
* **Entity Relationship Diagram (ER Diagram)**

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Description automatically generated

* **Relationships between Entities**

1. PASSENGER – TICKET 🡪 One to One (1:1)
2. PASSENGER – COMPANION 🡪 One to Many (1: N)
3. COMPANION – PASSENGER 🡪 Many to One (N:1)
4. PASSENGER – SURVIVAL 🡪 One to One (1:1)

* **Detailed Information about Tables**

1. PASSENGER
   1. **PassengerID (PK)** – INT
   2. FirstName - VARCHAR
   3. LastName - VARCHAR
   4. Age - INT
   5. Gender – CHAR
   6. PhoneNumber - INT
   7. EmailAddress – NVARCHAR
   8. Embarked – INT
2. TICKET
   1. **TicketID (PK)** – INT
   2. ***PassengerID (FK)*** – INT
   3. Zone – CHAR
   4. Class – VARCHAR
   5. SeatNumber – INT
3. COMPANION
   1. **CompanionID (PK)** – INT
   2. ***PassengerID (FK)*** – INT
   3. NumberOfChildren – INT
   4. NumberOfPets – INT
4. SURVIVAL
   1. **SurvivalID (PK)** - INT
   2. ***PassengerID (FK)*** – INT
   3. SURVIVE – INT

* **Referential Integrity Constraints**

1. PassengerID in **TICKET** must exist in **PASSENGER** as PassengerID.
2. PassengerID in **COMPANION** must exist in **PASSENGER** as PassengerID.
3. PassengerID in **SURVIVAL** must exist in **PASSENGER** as PassengerID.