UNIVERSITY Of KIGAIL

MUSANZE CAMPUS

BUTRUS WOL DUANG BAK

(REG. NO. D/BIT/2309000416)

Model Title: Database Management System
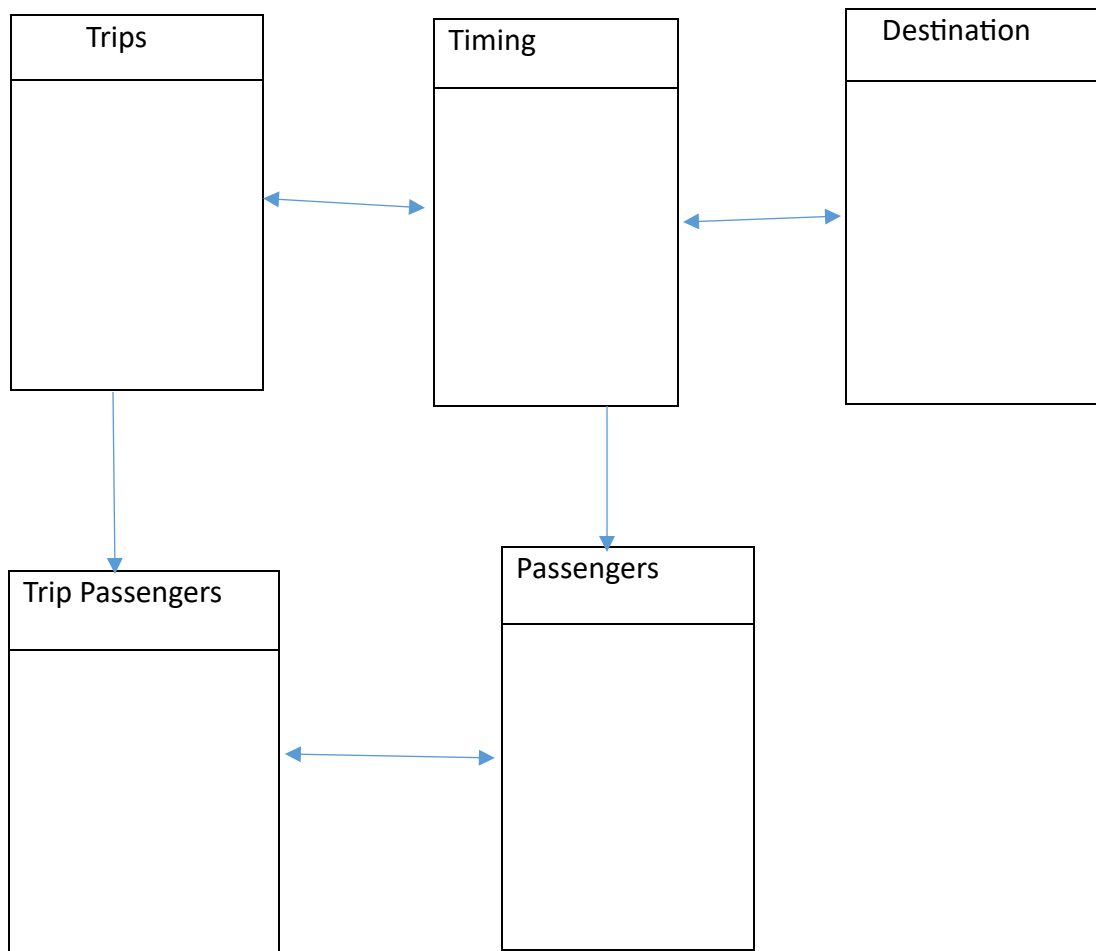
TO

DR_ BUGMGO EMMANUEL ...

1.Description of Project

The **Travel Itinerary Management System** is designed to manage travel plans, including trip details, timings, passengers, and destinations. This system aims to streamline the process of organizing and tracking travel itineraries, ensuring a seamless experience for users.

2. ERD (Entity-Relationship Diagram)

The ERD illustrates the relationships between the entities in system:

- **Trips**: Contains trip details.

- **Timing**: Stores departure and arrival times for trips.

- **Passengers**: Contains passenger information.

- **Destination**: Stores destination details for trips.

- **Trip Passengers**: Manages the many-to-many relationship between trips and passengers.

Trips		Timing		Destination

Trip Passengers		Passengers

3. LDM (Logical Data Model)

The LDM outlines the logical structure of the database:

- **Trips**: trip_id, trip_name, start_date, end_date

- **Timing**: timing_id, trip_id, departure_time, arrival_time

- **Passengers**: passenger_id, first_name, last_name, email, phone_number

- **Destination**: destination_id, trip_id, destination_name, address

- **Trip_Passengers**: trip_id, passenger_id

4. PDM (Physical Data Model)

The PDM details the physical implementation of the database:

- **Trips Table**: trip_id (PK), trip_name, start_date, end_date

- **Timing Table**: timing_id (PK), trip_id (FK), departure_time, arrival_time

- **Passengers Table**: passenger_id (PK), first_name, last_name, email, phone_number

- **Destination Table**: destination_id (PK), trip_id (FK), destination_name, address

- **Trip_Passengers Table**: trip_id (PK, FK), passenger_id (PK, FK)

5. Data Dictionary

The Data Dictionary provides descriptions of the data elements:

- **Trips**: Stores trip details.

- **Timing**: Stores departure and arrival times for trips.

- **Passengers**: Stores passenger information.

- **Destination**: Stores destination details for trips.

- **Trip Passengers**: Manages the many-to-many relationship between trips and passengers.