

Patient

P-id	P-name	Age	Country	Ag-id
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Booking agent

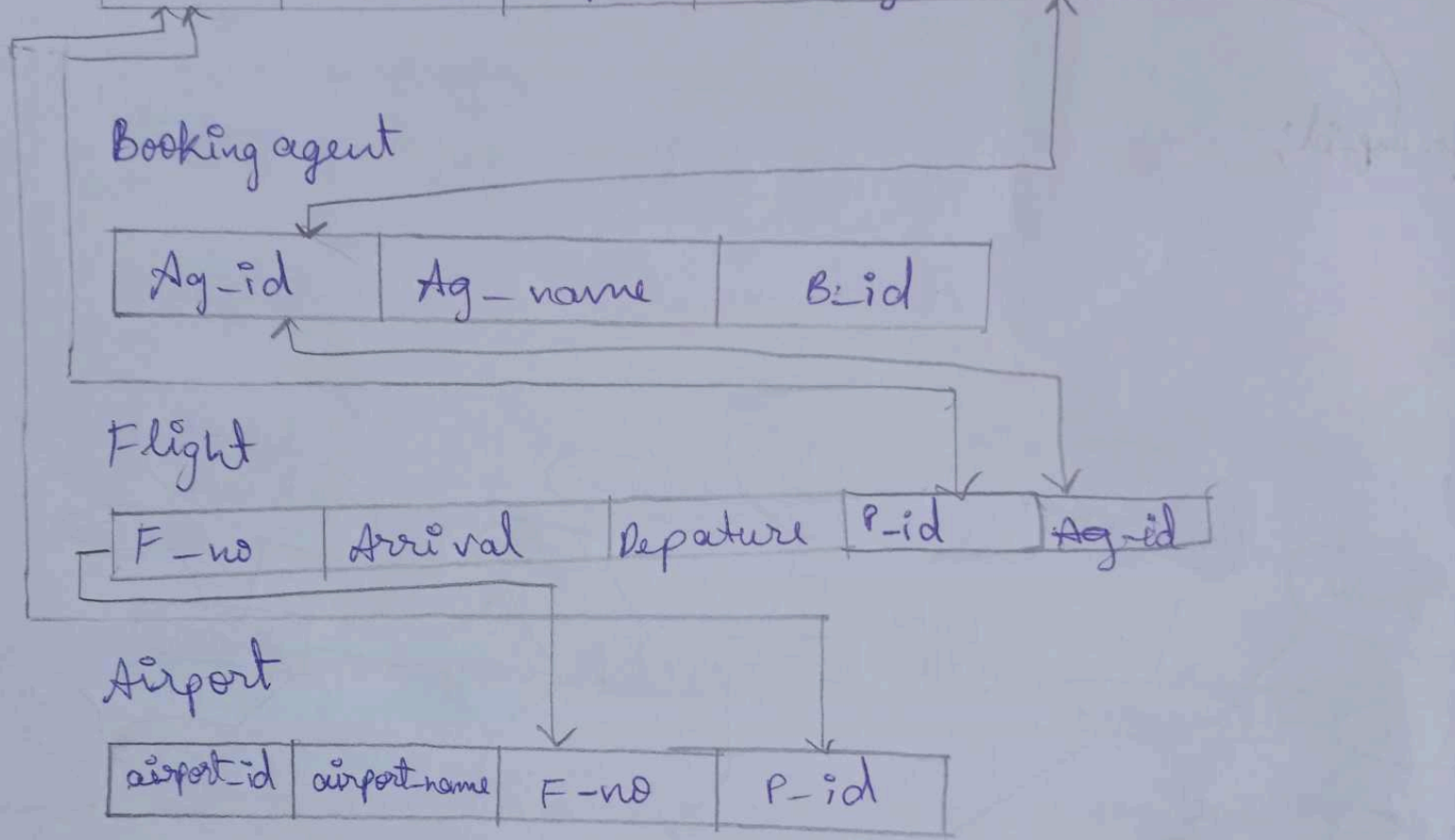
Ag-id	Ag-name	B-id
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Flight

F-no	Arrival	Departure	P-id	Ag-id
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Airport

airport-id	airport-name	F-no	P-id
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Integrity Constraints

1. Domain Constraints

* Every domain must contain atomic values.
It means composite and multi-valued attributes are not allowed.

* Every datatype must be clear.

Eg :- Passenger

P-id	P-name	Country
001	Dikshitha	India
002	Harshitha	china
003	Anu shree	Japan

After Conversion

P-id	F-name	L-name	country
001	Dikshitha	—	India
002	Harshitha	—	china
003	Anu	Shree	Japan

2. Key Constraints

* Every tuple in the table should be Unique.

* Null values are not allowed in primary key.

Eg:-

Airport - name

Kempegowda International Airport

chennai International Airport

Indira Gandhi International Airport

Not allowed
Because all

chennai International Airport

values must be unique.

3. Entity Integrity Constraints

* No Primary Key can take null value.

Eg:- Passenger

P-id	P-name	country
001	dikhittha	India
022	Harshittha	India
NULL	Jhanu	china
044	Anu	India

After Conversion

P-id	P-name	Country
011	dikhittha	India
022	Harshittha	India
033	Jhanu	china
044	Anu	India

4. Referential - Integrity Constraints

* Referential - Integrity Constraints are specified between two tables.

* The value of primary key in Relation-01 must be Unique.

Eg:- Booking Agent

Booking A-id	Booking Agent-name
101	Pushpa
102	Lakshmi
103	Nandan

Passenger

P-id	P-name	Booking A-id
011	Likhitha	101
022	Ankitha	
033	Harehitha	103

After Conversion

Booking Agent

Booking A-id	Booking A-name
101	Pushpa
102	Lakshmi
103	Nandan

Passenger

P-id	P-name	Booking A-id
011	Likhittha	101
022	Ankitha	102
033	Hawhittha	103

Normalization

1st Normal form.

* it should only have atomic valued attribute.

* Values stored in a column should be of the same domain.

* All the columns in a table should have a unique name.

* The order in which data is stored does not matter.

Ex:- ~~passenger~~ Table - 1

P_id.	P_name	Country	
001	Keerthi	china	
002	Shreya	Canada	
003	Raniya	Angola	Not allowed
		Angola	

After conversion

P_id	P_name	Country	
001	Keerthi	china	
002	shreya	Canada	
003	Raniya	Angala	
003	Raniya	Angala	

2nd Normal form

* It should be in the first Normal form.

* It should not have partial dependency.

Table-1

P-id	P-name	Ag-id
001	Keerthi	A16
002	Shravya	A15
003	Raniya	A18

Table-2

P-id	P-name
001	Keerthi
002	Shravya
003	Raniya

Table-3

P-id	Ag-id
001	A16
002	A15
003	A18

3rd Normal form

* It should be in the Second Normal form.

* Also it should not have transitive dependency.

Table-1

Airport-id	Airport-name	P-id	F-no
20160	BOM	001	AA1387
20170	BLR	002	AA8025
20180	MAA	003	BA1442

Table-2

Airport-id	Airport-name
20160	BOM
20170	BLR
20180	MAA

Table-3

Book-Ap-id	P-id	F-no
20160	001	AA1387
20170	002	AA8025
20180	003	BA1442

create table Bookingagent
(Ag-id int(10) primary key,
Ag-name char(15),
B-id int(10));

create table passenger
(P-id int(5) primary key,
P-name char(15) NOT NULL,
Age int(5),
Country char(10),
Ag-id int(10),
foreign key(Ag-id) references bookingagent(Ag-id));

create table flight
(F-no int(10) primary key,
Arrival time,
Departure time,
P-id int(5),
Ag-id int(10),
foreign key(P-id) references Passenger(P-id),
foreign key(Ag-id) references Bookingagent(Ag-id));

create table Airport
(airport-id int(10) unique key,
airportname char(20),
F-no int(10),
P-id int(10),

foreign key (F-no) references flight (F-no),
foreign key (P-id) references passenger (P-id));

4. Insert

Syntax :-

```
MySQL> Insert into <table-Name> values  
    (value1, value2, value3, ... valueN),  
    :  
    :  
    (value1, value2, value3, ..., valueN);
```

Eg :- MySQL> Insert into Passenger values
→ (011, 38, "India", 101),
→ (022, 35, "China", 103);

Delete

Syntax for deleting row

Syntax :-

```
MySQL> Delete from <table-Name>  
    where Condition = value;
```

Eg :- MySQL> Delete from Passenger
 where Agent-id = 103;

Syntax :- MySQL> Drop table <table Name>;

Eg :- MySQL> Drop table Passenger;

Update

Syntax for updating single column

Syntax :- Update < table-name >
Set column-name = "new value"
where condition = "value";

Eg:-

MySQL> Update parvenger

Set parvenger.address = "Kengeri" where
Agent-id = 101;

Query

- * Retrieve details of Passenger
- * Retrieve P_name, P_id, Country where age is greater than 18
- * Retrieve the arrival and departure time of F-no 001
- * Retrieve the details of passenger who travelled in F-no 002
- * Retrieve the passenger name where p-id 001.