Name: Manasi Jadhav

UID: 2018140025

Batch: B

TE-IT

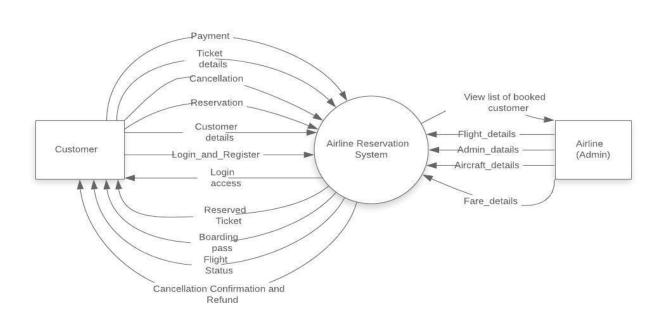
Experiment: 4

Data Flow Diagram for Airline Reservation System

Level - 0

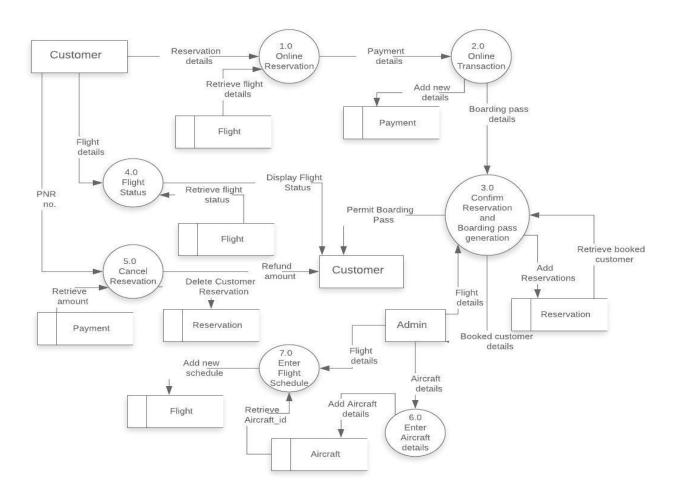
Airline Reservation System

jmanasi20 | September 18, 2020



Level - 1

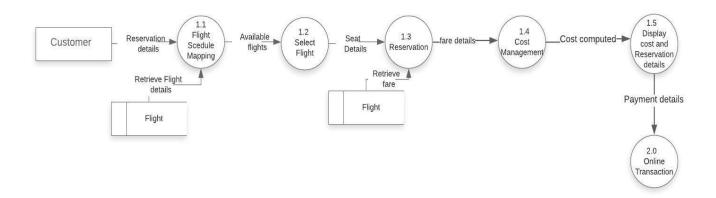
Airline Reservation System



Level – 2

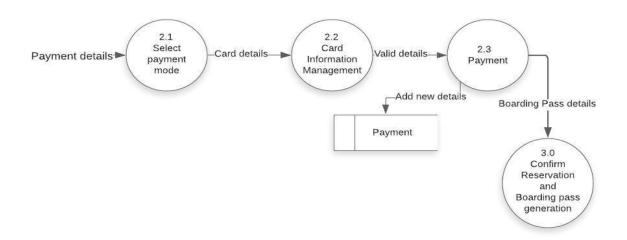
Data Flow Diagram for Process 1 (Online Reservation)

Airline Reservation System



Data flow diagram for Process 2 (Online Transaction)

Airline Reservation System



Data Dictionary

1) Flight details

Data Structure:

Flight_id + Origin + Destination + arrival_date + departure_date + arrival_time + departure_time + seats_economy+ seats_business + price_economy + price_business + aircraft_id

• Data Flow:

From Customer to Process 4.0

Data Store

Name: Flight

Primary Key - Flight_id, Aircraft_id

- Data Element:
 - Flight_id int
 - o Origin string
 - o Destination string
 - o arrival_date date
 - o departure_date date
 - o arrival_time time
 - o anival_time time
 - o departure_time time
 - o seats_economy int
 - o seats_business int
 - o price_economy int
 - o price_business int
 - aircraft_id int

• Description:

It searches the flight's status based on the description and displays the Flight status of the specified flight.

2) Reservation details

• Data Structure:

PNR + Flight_id + journey_date + class + seat_no + lounge_access

Data Flow:

From Customer to Process 1.0

Data Store

Name: Reservation

Primary Key - PNR, Flight_id

- Data Element:
 - o PNR int
 - Flight_id int
 - o journey_date date
 - o class string
 - o seat_no int
 - lounge_access string
- Description:

It allows customers to reserve tickets for an available flight.

3) Payment details

Data Structure:

Payment_id + PNR + payment_date + payment_amount + payment_mode

Data Flow:

From Process 1.0 to Process 2.0

Data Store

Name: Payment

Primary Key - Payment_id, PNR

- Data Element:
 - o Payment id int
 - o PNR int
 - o payment_date date
 - payment_amount int
 - o payment_mode string
- Description:

It allows customers to pay for a reserved ticket .It provides various payment modes such as pay by card or net banking.

4) Boarding pass details

Data Structure:

PNR + Flight_id + Passenger_name + journey_date + Origin + Destination + seat_no + Luggage + lounge_access + boarding_time

Data Flow:

From Process 2.0 to Process 3.0

Data Store

Name: Boarding_pass

Primary Key – PNR, Flight_id

- Data Element:
 - o PNR int
 - Flight_id int
 - Passenger_name string
 - o journey_date date
 - Origin string
 - Destination string
 - o seat_no string
 - Luggage string
 - lounge_access string
 - o boarding_time time
- Description:

It permit a boarding pass to the customer who have booked tickets.

5) Customer details

Data Structure:

Customer_id + Username + Password + Name + email + phone_no + address

Data Flow:

From customer to Register process

Data Store

Name: Customer

Primary Key - Customer_id

- Data Element:
 - Customer_id int
 - Username string
 - Password string
 - Name string
 - Email string
 - Phone_no int
 - o Address string
- Description:

It contains information of all customers in an airline

6) Aircraft details

Data Structure:

Aircraft_id + aircraft_type + total_capacity + status

Data Flow:

From Admin to Process 6.0

Data Store

Name: Aircraft

Primary Key – Aircraft_id

• Data Element:

- Aircraft_id int
- o aircraft_type string
- o total_capacity int
- o status string
- Description:

It allows admin to add new aircraft in an airline.