Airport Management System
Detailed Design Document

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Introduction

This document presents a brief overview of our Project on an Airport Management System. In here we mention work summary and ER diagram and Relational schema of our application. We also provided implementation details of our application where we mentioned a brief overview of what each class and jsp does and also some sample outputs and various home pages and login page of our application.

Work Summary

First we discussed what jsp files and classes for extracting data from the database which are necessary for our application.

The following are the main components of our project:-

A. Database creation
B. Coding up the jsp and .java files
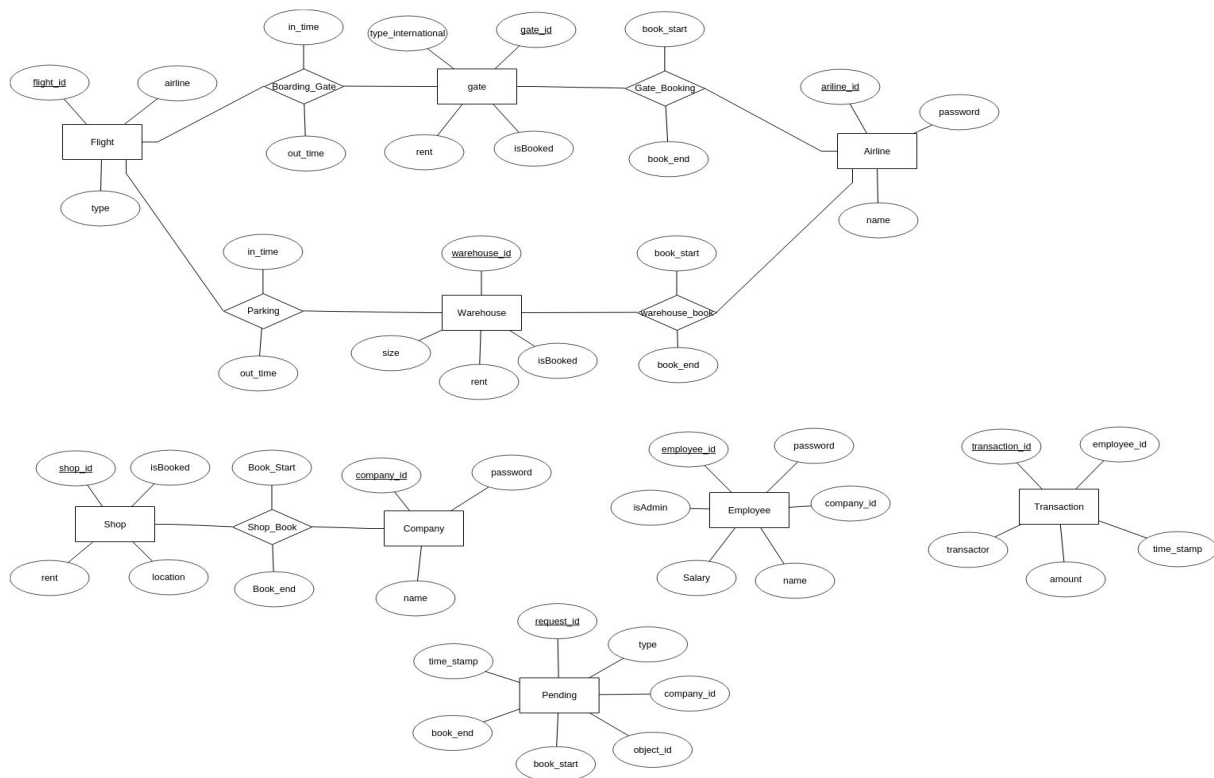C. Interface design(CSS styling)
D. Testing and Debugging
E. Documentation

The division has roughly been as follows:-

1. Devanshu(KD)-B(airline,company),D
2. Nagaraju(NK)-A, B(admin,employee),D
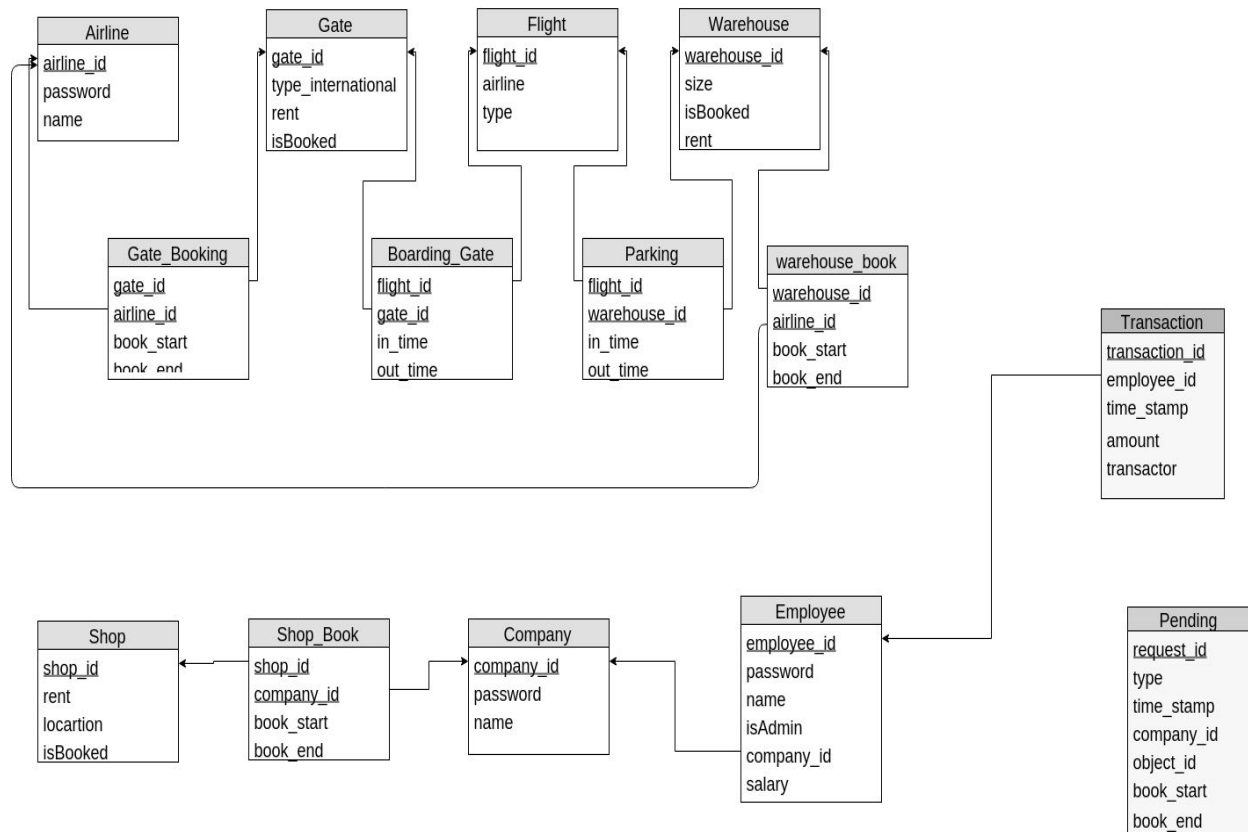3. Kranthi(VK) -B(homepage,login),C

We tried to divide the jsp's and the corresponding database files amongst ourselves . We tried to code in presence of team to a maximum extent possible to resolve doubts/queries within ourselves. The workflow is as follows

1. NK of us started off with "A" and KD, VK were involved with "B"
2. NK, KD work on "B" while VK shifts to "C"
3. NK, VK do "D" while VK is involved in "C"
4. All of us do "E"

ER diagram

Relational Schema:-

Airline
airline_id
password
name

Gate
gate_id
type_international
rent
isBooked

Flight
flight_id
airline
type

Warehouse
warehouse_id
size
isBooked
rent

Gate_Booking
gate_id
airline_id
book_start
book_end

Boarding_Gate
flight_id
gate_id
in_time
out_time

Parking
flight_id
warehouse_id
in_time
out_time

warehouse_book
warehouse_id
airline_id
book_start
book_end

Transaction
transaction_id
employee_id
time_stamp
amount
transactor

Shop
shop_id
rent
locartion
isBooked

Shop_Book
shop_id
company_id
book_start
book_end

Company
company_id
password
name

Employee
employee_id
password
name
isAdmin
company_id
salary

Pending
request_id
type
time_stamp
company_id
object_id
book_start
book_end

Implementation Details

Classes :

1. Login.java :- This class implements various functions like admin_access, employee_access, airline_access, company_access which take arguments as username and password and verifies whether the one who is logged in is admin, employee, airline or company respectively.
2. FlightInfo.java :- This class is used for getting flight information from database.
3. Employee.java :- This class is used for adding transactions of the particular day to the database.

4. Company.java :- This class is used for booking shops and it also implements a function which checks whether there is a date clash between bookings.
5. Airline.java :- This class is used for booking gates, warehouses and it also implements a function which checks whether there is a date clash between bookings.
6. Admin.java :- This class implements functions like getShops(), getWarehouses(), getGates() which gets all the pending requests of the shops, warehouses and gates respectively. These also implements updatePending() function which updates the pending requests, registration() function which registers new airlines and companies, register_employee() function which registers new employees. and also implements function which checks date clash between bookings.

Interface Design and Outputs

We plan to have the following interfaces:

1. **home.jsp** Home Page of the application :- These shows the flight information of all the flights.

Welcome to CST International Airport   Click here to login

Here is the flight information for the next few hours

FlightId	Name	Type	GateId	Start time	End time
40	FirstAirline	international	30	12:25:31	12:25:31
41	SecondAirline	domestic	31	12:26:20	12:26:20

2. **login.jsp** Login Page of the application :- Different entities like Admin, Airlines, Companies and Employees can login here by selecting their specific entity and entering their username and password. If username and password match then they are redirected to their respective homepages otherwise they are redirected to the home page.

Login Page

Login here

Entity:	Admin ▾
Username:	
Password:	
	Login

3. **airline.jsp** Airline Home Page :- This is the home page for the airlines where they can look at their successful bookings/pending requests and can also request for more

gates/warehouses.

4. **admin.jsp** Admin Home Page :- This is the home page for the admin where he can look through various requests of warehouses and gates which he can accept or reject. He can also add warehouses/gates/shops of the airport.

5. **company.jsp** Enterprise Home Page :- This is the homepage for the enterprise(company) where they can look at their successful bookings/pending requests and can also request for more shops.

Welcome Company   Logout

welcome 20

Your Shop bookings are as follows

Shop	Start date	End date
60	2015-01-01	2015-04-01
61	2016-01-01	2016-04-01
60	2015-01-01	2015-04-01
60	2016-01-01	2016-04-01

The Results for your last 5 requests are as follows

Requested For	BookingId	Status
61	1013	pending

Request for a Shop here

Enter Shop Id: [   ]

Enter StartDate: [   ]

Enter EndDate: [   ]

Submit

You have gone full screen.   Exit full screen (F11)

6. **employee.jsp** Employee Home Page :- This is the homepage for the employee where he can add transactions carried on that day.

Welcome Employee   Logout

Add you transaction here

Enter Amount: [   ]

Enter Purpose: [   ]

              Submit