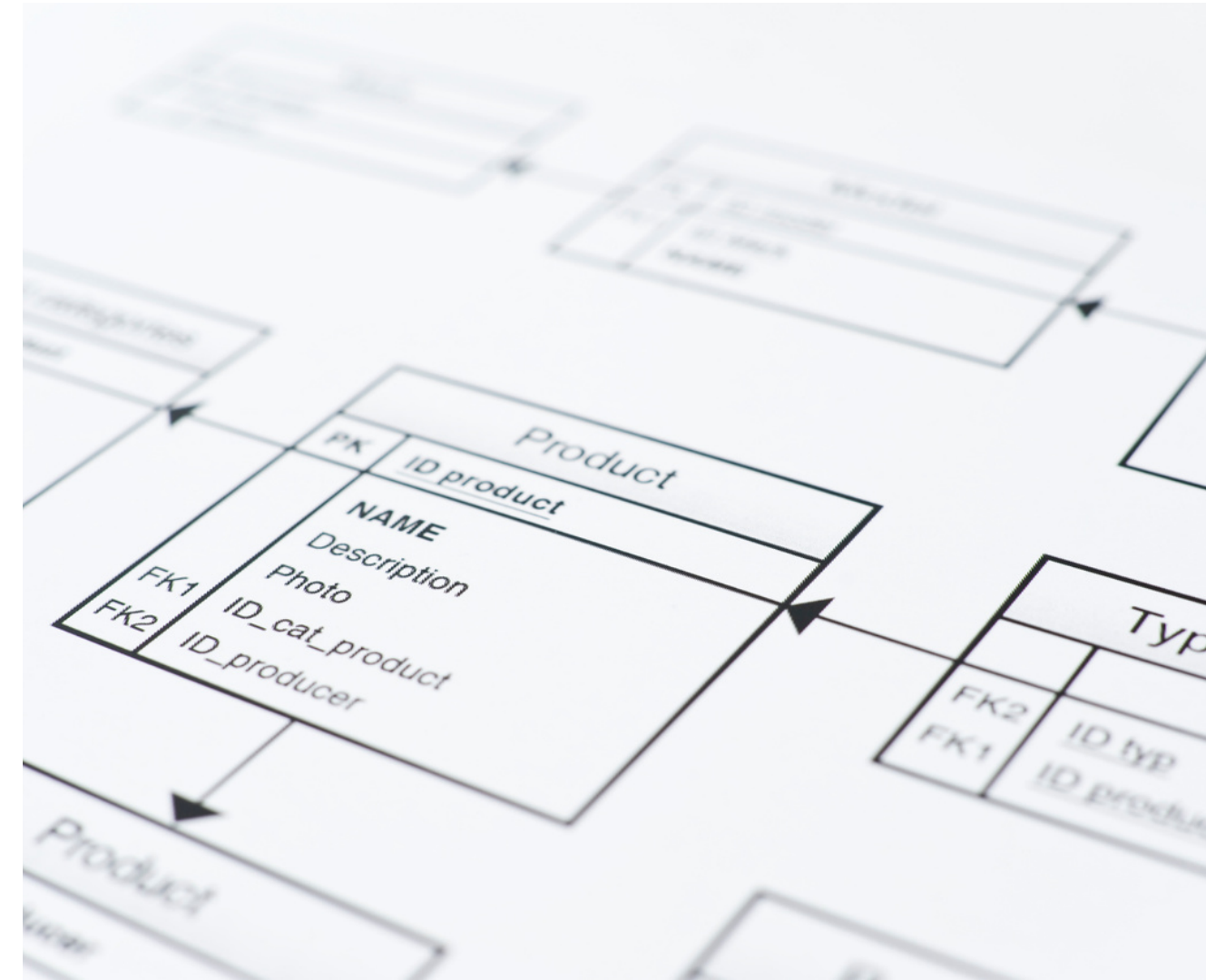# Advanced Course in Database Systems Presentation

ScalarDB

TEAM STACKOVERFLOW ENGINEER

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Airplane Ticket Management System

We built an airplane ticket management system that allows potential customers to book and pay for a flight ticket.

Use Case Scenario

Searching

Users can search for available flights to a certain destination on a certain date.

1

Booking

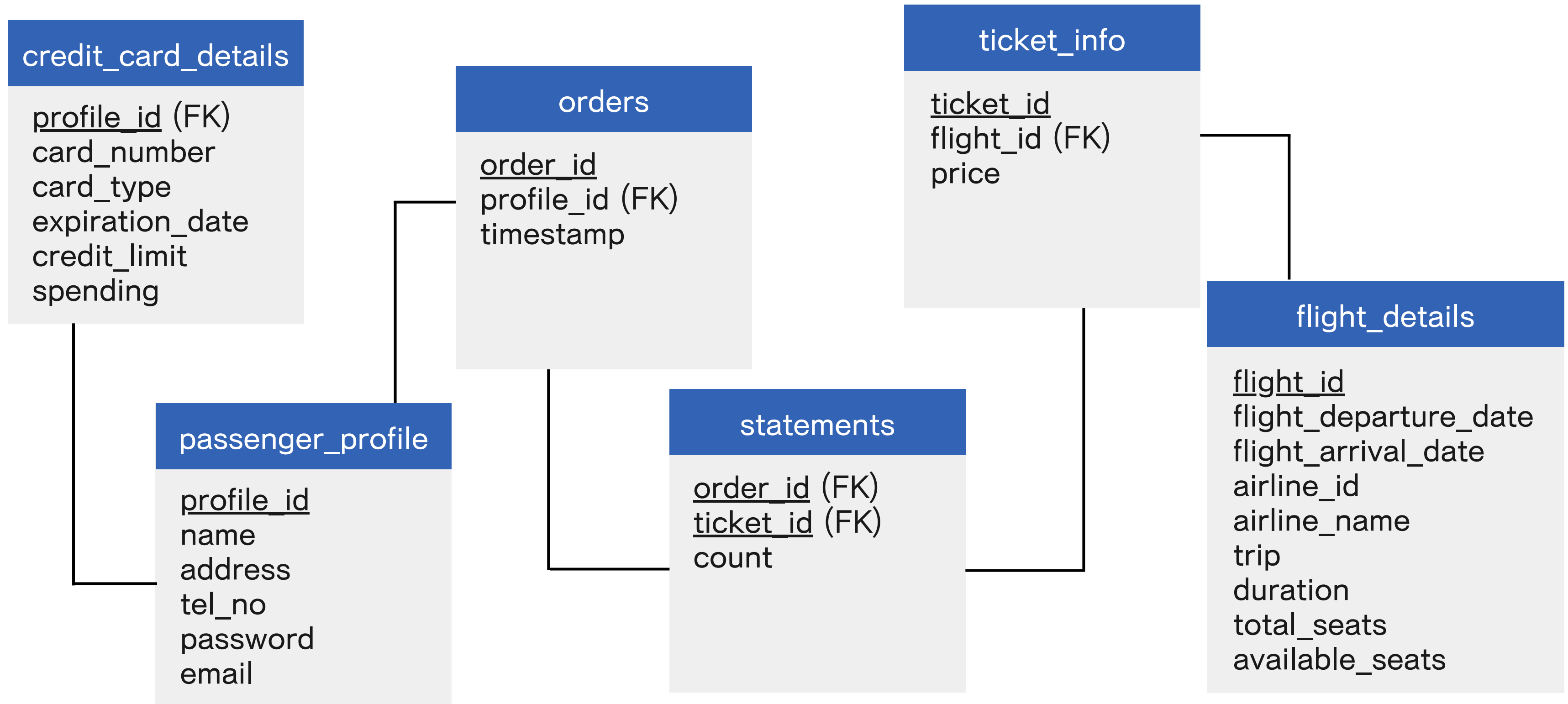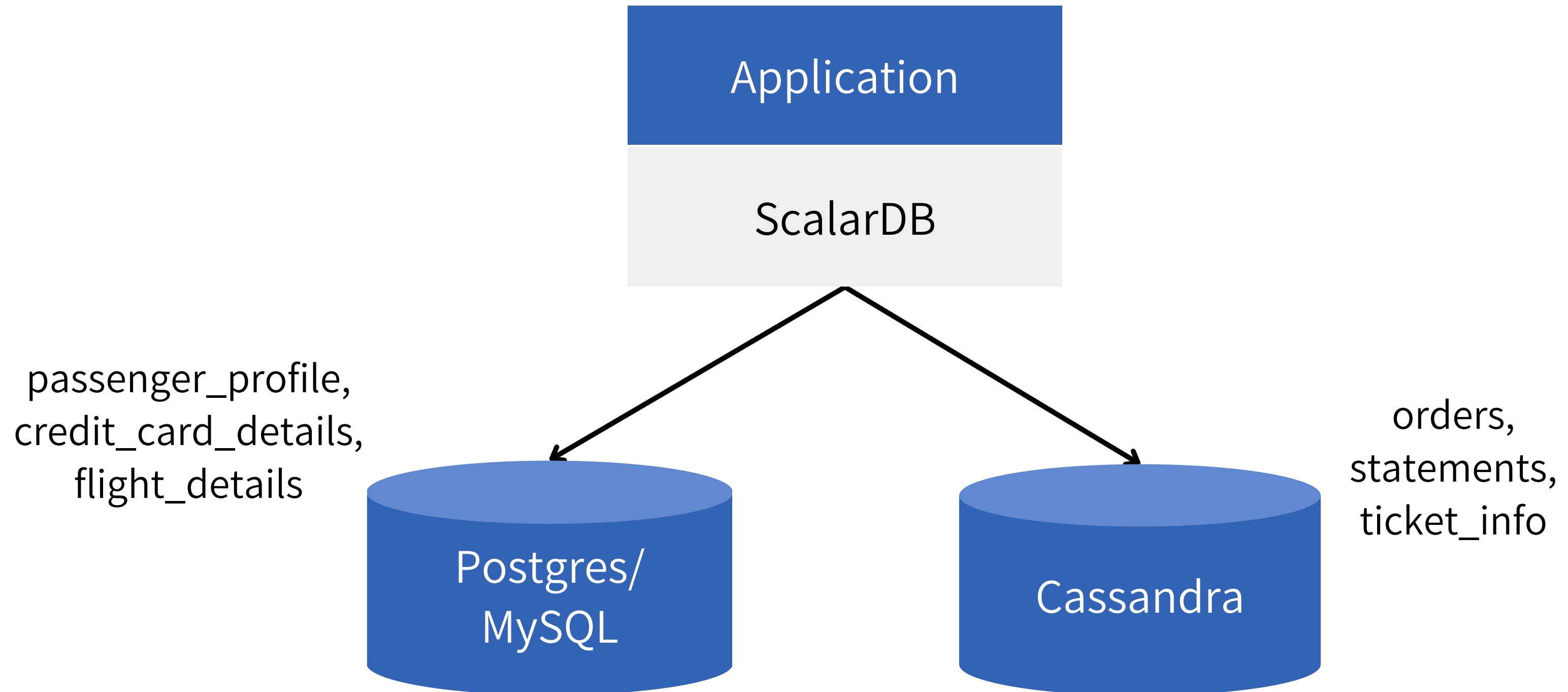Registered users can proceed to booking and pay with their credit card.

2

Confirmation

Once the user has confirmed the booking details, the order is complete.

3

Schema

credit_card_details

profile_id (FK)
card_number
card_type
expiration_date
credit_limit
spending

orders

order_id
profile_id (FK)
timestamp

ticket_info

ticket_id
flight_id (FK)
price

passenger_profile

profile_id
name
address
tel_no
password
email

statements

order_id (FK)
ticket_id (FK)
count

flight_details

flight_id
flight_departure_date
flight_arrival_date
airline_id
airline_name
trip
duration
total_seats
available_seats

Database Design

Example Initial Data: passenger_profile

profile_id	name	address	tel_no	password	email
1	Passenger no1	Hiyoshi International Dormitory	N/A	azertyuiop	passenger1 @keio.jp
2	Passenger no2	Yagami Dormitory	+33 6 58 45 29 84	password	passenger2 @keio.jp
3	Passenger no3	2bis place barthelemy, Rouen	0595-456-6844	jaipasdinspi	passenger3 @keio.jp

Example Initial Data: credit_card_details

profile_id	card_number	card_type	expiration_date	credit_limit	spending
1	41564615	Visa	06/18/23	15000	0
2	14566844	MasterCard	07/03/26	20000	0
3	88465455	Visa	12/01/28	300000	0

Example Initial Data: ticket_details

ticket_id	flight_id	price
1	1	1000
2	2	2000
3	3	2500
4	1	5000
5	3	3000

Implemented Functionalities

#1

Load initial data

#2

Get passenger info

#3

Place an order

#4

Get order info by order ID

#5

Get order info by profile ID

Implemented Functionalities

#6

Get credit
card info

#7

Get ticket
info

#8

Get flight
info

#9

Exchange
tickets

#10

Repay certain
amount

Demonstration

Thank you for your attention!

Role Description of Each Team Member

Yuan Pei-Chieh

involved in idea concept, use case scenario creation, and database design

Etevenard Thibaud

involved in schema creation, implementation, and demo

Szu Kai-Ling

involved in idea concept, use case scenario creation, database design and creation of presentation slides

Xiong Jian

involved in schema creation, implementation, and demo