
TRANSPORT4YOU PROJECT PHASE I

Qunjie Zhou 03670699 & Zhen Yan 03670099

SYSTEM OVERVIEW

Purpose:

E-ticket payment system

System Components :

Web application:

on remote server

Java Application:

on bus

Android Application:

on user personal android device

Shared Component:

used by all other three components



ARCHITECTURE

OBJECT-ORIENTED ARCHITECTURE

Advantage:

Well modelling of the real world

Code reuse

Encapsulation => maintenance

Low coupling between system components

Disadvantage:

Time-consuming in modelling

Large code size

Large number of function calling

Lower running performance efficiency

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SYSTEM COMPONENTS

Web System:

- user registration
- user authentication
- ticket generation

Bus System:

- transport layer security implementation
- ticket validation

Mobile System:

- login
- synchronise user & ticket information
- display account & ticket
- scan bus

Shared Component:

- provide interfaces for other three components



COMPONENTS INTERACTION

- Web \Leftrightarrow Mobile : via HTTP (Client-Server)
- Mobile \Leftrightarrow Bus: via Bluetooth



GAPS

- Manager Perspective: different tickets
 - Bus Perspective:
 - selling tickets
 - checking passenger capacity
 - inform
 - Customer Perspective:
 - reliable
 - advertise
 - obtain ticket
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