LoginActivity

Initialize login when user click the login button

+ onCreate(): void

SignUpActivity

Initialize Sign Up when user click the sign up button

+ onCreate(): void

Database

+ db: ArrayList<Profile>
+ size: int

+ FindProfileByID(id: String): Profile
+ AddProfile(p: Profile): Boolean
+ DeleteProfile(p: Profile): void
+ Login(id:String, password:String): Boolean

1
0..*

DriverActivity

+ onCreate(): void
+ CheckProfile(Profile):void
+ CheckTickets(): void
+ PayTicket(double): void
+ AddMoney(double): void
+ LogOut(): void

OfficerActivity

+ onCreate(): void
+ CheckProfile(Profile): void
+ CheckDriverProfile(Profile): void
+ CheckTicket(): void
+ GiveTicket(t: Ticket): Boolean
+ LogOut(): void

AdminActivity

+ onCreate(): void
+ CheckProfile(Profile): void
+ CheckDriverProfile(Profile): void
+ CheckTicket(): void
+ LogOut(): void

Profile

+ type: int
+ id: String

+getId():String
+getType(): int
+setId(id: String):void
+setType():void

type == 1 means admin
type == 2 means police officer
type == 3 means driver

TicketsHistory

+ HistoryList: ArrayList<History>

+ AddTicket(t: Tickets): void
+ DeleteTicket(t: Tickets): void
+ FindTicketsByNo
   (TicketNo:String): Tickets

1
1
0..*

Tickets

+ TicketsNo: String
+ DateRecived: Date
+ ViolationType: String
+ FineAmount: double

+ getTicketsNo(): String
+ getDateRecived(): Date
+ getViolationType(): String
+ getFineAmount(): double
+ setTicketsNo(String): void
+ setDateRecived(Date): void
+ setViolationType(String): void
+ setFineAmount(double): void

DriverProfile

+ FirstName: String
+ LastName: String
+ Password: String
+ LicenseNo: String
+ Balance: double
+ TicketsHistory: TicketsHistory

+ getFirstName():String
+ getLastName():String
+ getPassword(): String
+ getLicenseNo(): String
+ getBalance(): double
+ getTicketsHistory(): TicketsHistory
+ setFirstName(String): void
+ setLastName(String): void
+ setPassword(String): void
+ setLicenseNo(String): void
+ setBalance(double): void

OfficerProfile

+ FirstName: String
+ LastName: String
+ Password: String

+ getFirstName():String
+ getLastName():String
+ getPassword(): String
+ setFirstName(String): void
+ setLastName(String): void
+ setPassword(String): void

AdminProfile

+ FirstName: String
+ LastName: String
+ Password: String

+ getFirstName():String
+ getLastName():String
+ getPassword(): String
+ setFirstName(String): void
+ setLastName(String): void
+ setPassword(String): void

User

System database

Officer Server

Driver Server

Admin Server

Software Architecture Diagram