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Airport Check-In Simulator

Project description

This project is about simulating the activity of 10 check-in points of a small airport on a dashboard for airport check-in supervision.

Passengers come to a check-in point. Every passenger has a ticket for a specific flight, and an identity card. Every flight has a passenger list containing enough information to uniquely identify every passenger. A check-in point is destinated for a specific time interval to a specific flight.

When a passenger comes to check-in the id card and the ticket are presented at the check-in point for verification. Then their luggage is weighed and an id tag is attached. Afterwards the luggage is sent for loading into the plane. The passengers move through a gate, their credentials are checked again then they go to the waiting room for boarding.

At every check-in point there will be a queue of passengers (some of them with checked bag).

Features

- "add more passengers" button
    - The user can add more passengers with all the details which are later added to the specific queue and to the data base
- check plane schedule
    - The user can view all the flights from the airport
- see plane seats
    - The user can see the seats for a specific flight, their availability and the details of the passenger which has a ticket for that seat
- see current state
    - In the main scene is a table with all the check-in gates and their activity
- delete passengers
    - The user can delete a passenger from the data base
- 1 minute updates
- Play/Pause button
- Reset button

UML Diagram

Main
+queue1-10

+main()
-clearQueue()
+initQueue()
+addToQueue()

MySqlCon
-connection

+mySqlConnect()
+updateDB()
+Query()
+getLastIndex()
+mySqlDisconnect()

Passenger
-ticket
-identityCard
-luggage
-status
-queueNumber
-id
-gateTime
-startGateTime
-checkDetailsTIme
-startCheckDetailsTime
-weightLuggageTime
-startWeightLuggageTIme
-moveThroughGateTime
-startMoveThroughGateTIme
-inWaitingRoomTIme
-startInWaitingRoomTIme

-getRandom()
+get..()
+set..()

Ticket
-flightId
-seat
-id

+get..()
+set..()

Luggage
-weight
-luggageId
-status

-getRandom()
+get..()
+set..()

«enumeration» LuggageStatus
NOT_WEIGHTED
WEIGHTING
WEIGHTED
SENT_TO_PLANE

GUI
-window
-sceneAddPassenger
-sceneFlightSchedule
-sceneDeletePassenger
-timeline
-pausePLayButton
-gatesTable
-gates
-luggage

+launchGUI()
+start()
-refreshQueue()
-refreshTable()
-refreshLuggage()
-refreshLuggageTable()
-reset()
-moreStepsToDo()

InsertPassengerScene
-sceneAddPassenger

+display()
-isNotEmpty()
-isInt()

DeletePassengerScene
-sceneDeletePassenger

+display()

PaasengerDetailsBox
+display()

IdentityCard
-firstName
-lastName
-address
-birthDate
-citizenship
-id

+get..()
+set..()

«enumeration» PassengerStatus
IN_QUEUE
AT_CHECK_IN
CHECKING_DETAILS
WEIGHTING_LUGGAGE
MOVE_THROUGH_GATE
IN_WAITING_ROOM

SeatsViewBox
+display()

FlightView
-sceneFlightScedule

+display()
+getFlight()

ConfirmBox
-answer

-display()

Flight
-id
-departureTime
-arrivalTime
-destination

+get..()
+set..()