

## UML

### User <<abstract>>

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- email: String  
- password: String

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+ User(email: String, password: String)  
+ login(email: String, password: String): boolean  
+ createAccount(email: String): boolean

### Client extends User

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- firstName: String  
- lastName: String  
- address: String  
- creditCard: String  
- bookedItinerary: List<Itinerary>

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+ getName(): List<String>  
+ getAddress(): String  
+ getCC(): String  
+ setPassword(password: String): void  
+ setName(first: String, last: String): void  
+ setAddress(address: String): void  
+ setCC(creditCard: String): void  
+ searchByTime(date: Date, origin: String, destination: String): List<Itinerary>  
+ searchByCost(date: Date, origin: String, destination: String): List<Itinerary>  
+ book(toBook: Itinerary): void  
+ booked(): List<Itinerary>

### Admin extend User

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- variables

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+ getClientEmail(client: Client)  
+ getClientPassword(client: Client)  
+ getClientName(client: Client)  
+ getClientAddress(client: Client)  
+ getClientCC(client: Client)  
+ setClientEmail(client: Client, email: String)  
+ setClientPassword(client: Client, password: String)  
+ setClientName(client: Client, first: String, last: String)  
+ setClientAddress(client: Client, address: String)  
+ setClientCC(client: Client, creditCard: String)  
+ viewClients(): List<Client>  
+ addFlight(toAdd: Flight): boolean  
+ addFlightsFromFile(inFile: String): boolean

## Flight

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- flightId: int
  - arrivalTime: String
  - departTime: String
  - origin: String
  - destination: String
  - airline: String
  - flightTime: double
  - cost: double
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- + Flight(arrivalTime: String, departTime: String, origin: String, destination: String, cost: double)
- + checkStatus: String
- + setFlightId: void // setFlightId() calls hashCode() to make unique hash key which will be the flight ID

## Itinerary<Flight>

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- List<Flight>
  - itineraryId: int
  - totalCost: double
  - totalTime: double
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- + Itinerary()
- + setItineraryId(): void
- + getTotalCost(): double
- + getTotalTime(): double
- + addFlight(flight: Flight): boolean
- + removeFlight(flight: Flight): boolean
- + getFlight(index: int): Flight

## Database