|  |  |
| --- | --- |
| User                                                                                                                             Client, Admin | |
| password  username  authenticate user  load list of users  user type  set billing  set personal  set flight  get billing  get personal  get flight | Personal  Billing  Flight |

|  |  |
| --- | --- |
| User  Admin | |
| upload flight  upload personal  upload billing  view client info  view search by time  view search by cost | Client  Flight  Billing |

|  |  |
| --- | --- |
| User                                                                     Client | |
| username  password  add personal info  view personal info  add billing info  view billing info  view search by time  view search by cost  search itinerary  book flights | Flight |

|  |  |
| --- | --- |
| InvalidPasswordException | |
| gives a message about the exception |  |

|  |  |
| --- | --- |
| UserNotRegisteredException | |
| gives a message about the exception |  |

|  |  |
| --- | --- |
| FlightManager | |
| dateTimeToInt  flightMapToArray  getDateTime  getFileLineNum  getFlightInfo  getTravelTime  getTravelTimeToInt  getTravelTimeToString  readFile  readFileCSVFile  saveItineraries  setFlights  sortByCost  sortByTravelTime |  |

|  |  |
| --- | --- |
| PersonalManager  Personal | |
| enter first name  enter last name  enter email  enter address  book flights | Flight |

|  |  |
| --- | --- |
| PersonalManager                                                                                                                                    Personal | |
| create new file  read from CSV file  print personal information  add personal information in the file  save to CSV file |  |

|  |  |
| --- | --- |
| BillingManager  Billing | |
| enter last name  enter first name  enter address  enter email  enter credit card number  enter expiredate  enter id |  |

|  |  |
| --- | --- |
| BillingManager                                                                                                                                   Billing | |
| read from CSV file  print billing info  add billing info  save to CSV file  get billing info |  |

|  |  |
| --- | --- |
| Flight | |
| flight Number  departure date  departure time  arrival date  arrival time  airline  origin  destination  travel time  cost get seats  set seats |  |

|  |  |
| --- | --- |
| UserManager | |
| authenticate user  load list of users  read from CSV file  print users  add users  save to CSV file | User |

|  |  |
| --- | --- |
| Activity  AdminActivity | |
| start search flight  start search itinerary | User |

|  |  |
| --- | --- |
| Activity  ClientActivity | |
| start search flight  start search itinerary  start billing information  view flights | User |

|  |  |
| --- | --- |
| Activity  DisplayBillingActivity | |
| save billing information |  |

|  |  |
| --- | --- |
| Activity  DisplayBookedActivity | |
| display transfers  display booked flights | User |

|  |  |
| --- | --- |
| Activity  DisplayFlightsActivity | |
| book flight  display by time  display by cost | User |

|  |  |
| --- | --- |
| Activity  DisplayItineraryActivity | |
| book flights  display transfers  display flights | Flight  User |

|  |  |
| --- | --- |
| Activity DisplayPersonalActivity | |
| display first name  display last name  display email  display address | Personal |

|  |  |
| --- | --- |
| Activity  MainActivity | |
| authenticate user  start admin  start client  start sign up | UserManager  ClientActivity  User  Admin |

|  |  |
| --- | --- |
| Activity  Search Activity | |
| display itinerary  display flights | User  DisplayItineraryActivity  DisplayFlightsActivity |

|  |  |
| --- | --- |
| Activity  UserSignUp | |
| Register User  save email  save password | UserManager  User  Personal  Billing  Client Activity |