**Place Class**

String name

String location

String description

public place(String name, String location)

this.name = name

this.location = location

public place(String name, String location, String description)

this.name = name

this.location = location

this.description = description

public void setName(String name)

this.name = name

public void getName()

return name

public void setLocation(String location)

this.location = location

public void getLocation()

return location

public void setDescription(String description)

this.description = description

public void getDescription()

return description

public void destroy()

destroy object

**Road Class**

String name

double distanceOnRoad

int trafficEstimate

int speedLimit

public Road(String name, double distanceOnRoad, int trafficEstimate, int speedLimit)

this.name = name

this.distanceOnRoad = distanceOnRoad

this.trafficEstimate = trafficEstimate

this.speedLimit = speedlimit

timeLeft = distanceOnRoad / speedLimit + trafficEstimate

public void setTime()

timeLeft = distanceOnRoad / speedLimit + trafficEstimate

public int getTime()

return time

public void setName(String name)

this.name = name

public int getName()

return name

public void setDistanceOnRoad(int distanceOnRoad)

this.distanceOnRoad = distanceOnRoad

public int getDistanceOnRoad()

return distanceOnRoad

public void setTrafficEstimate(int trafficEstimate)

this.trafficEstimate = trafficEstimate

public int getTrafficEstimate()

return trafficEstimate

public void setSpeedLimit(int speedLimit)

this.speedLimit = speedLimit

public int getSpeedLimit()

return speedLimit

public void destroy()

destroy object

**Navigation Class**

Place currentLocation

Place destination

int timeEstimate

double distance

Road[] route

Public navigation(Place currentPlace, Place destination, Road[] route)

this.currentPlace = currentPlace

this.destination = destination

this.distance = distance

this.route= route

timeEstimate = 0

distance = 0

for each road in route

timeEstimate += road.getTime()

distance += road.getDistanceOnRoad()

public void updateRoute(Road[] newRoute)

route = newRoute

timeEstimate = 0

distance = 0

for each road in route

timeEstimate += road.getTime()

distance += road.getDistanceOnRoad()

public Road[] getRoute()

return route

public int getTimeEstimate()

return timeEstimate

public double getDistance()

return distance

public void setCurrentLocation(Place newLocation)

currentLocation = newLocation

public Place getCurrentLocation()

return currentLocation

public void setDestination(Place newDestination)

destination = newDestination

public Place getDestination()  
 return destination

public void destroy()

destroy object

**Map Class**

Place[] places

Public Map(Place[] places)

this.places = places

public void setPlaces(Place[] places)

this.places = places

public Place[] getPlaces()

return places

public Place searchPlaces(searchedPlace)

return places.search(searchedPlace) //search is java import

public void addPlace(Place place)

places[places.length+1] = place

public void removePlace(Place removedPlace)

for each place in places

if place = removedPlace

remove place

public void destroy

destroy object

**Client Class**

String displayName

String username

String password

Public Client (String displayName, String username, String password)

this.displayName = displayName

this.displayName = displayName

this.displayName = displayName

public void setDisplayName(String displayName)

this.displayName = displayName

public String getDisplayName()

return displayName

public void setUsername(String username)

this.username = username

public String getUsername()

return username

public void setPassword(String oldPassword, String newPassword)

if password = oldPassword

password = newPassword

public boolean verify(String username, String password)

return this.username = username and this.password = password