Provided program attempts to solve a travelling salesman problem, where weight of an edges between two cities is constructed from time and cost of a given edge. Since both of this parameters have affect on the weight in direct ratio, we consider it this way: weight = time * cost.

Yet, here we provide application of genetic algorithm to the given problem. Hence, the solution to the problem is not guaranteed to be solved deterministically, but to be the best among all solutions in researched field.

The following implementation can be considered as a soluiton of problem when we want to get from city A to city B and across some sities with balanced time-cost expenses.

Next paragraphs describe classes of program.

City.java
Instance of this class will be referred to as a city with x, y coordinates and assigned id.
It has distanceTo, timeTo, costTo methods, that are ment to calculate according values between two cities.

TourManager.java
Instance of this class holds all information about tour cities.

Tour.java
Objects of this class are reffered to as tours, calculates fitness level of a route, can calculate needed time and costs of a tour.

Population.java
Instance of this class manages a population of candidate tours for the best solution, gets the best tour among existiing ones.

GA.java
This class will handle the working of the genetic algorithm and evolve our population of soluitons.

TSP_GA.java

Now we can initiate our cities with ids and coordinates, and evolve a route for our initial problem.