TSP (Traveling Sales Problem)

Project outline

Tasks:

* Reader for ".tsp" files (e.g. **berlin52.tsp**)
* Class for the nodes/city
  + ID
  + X-coordinate
  + Y-coordinate
  + getDistance method
* Class for Tour organizing called TourOrganizer
  + addNode
  + getNode
  + numberOfNodes
* Class for Tour representing a possible solution
* Class for simulated annealing process
* Decide on programming language? (**Java** or C)

First Task: Basic Structure of classes (Mustafa)

Second task: Reader for .tsp files (Mohamed)

Third task: Strategy for temperature lowering (Neil)

4th Task: Distanzmatrix berechnen

Ideas:

linear  
 quadratic  
 power  
 polynomial  
 rational  
 exponential  
 logarithmic  
 sinusoidal

Future tasks:

Testing different parameters for temperature lowering (future task)

Performance analysis (future task), runtime,

Some visualization (only for Mustafa)  
Ideas: compare different nh structures, 2opt, 3opt, further ideas

Stopping conditions (if in local optima, Zielfunktion ändert sich nicht,)

Submit code,

Submit presentation,

Submit documentation