Plan of Action- Genetic Algorithms

Week 1

Decide upon the project- had to choose between encryption/decryption and Travelling Salesman Problem - decided finally to do travelling salesman.
Key Ideas - Read about Genetic Algorithms in general; What they are, how they work, what potential applications of these exist, and what are the best and most productive ways to apply genetic algorithms,

Week 2

Read about the question that we wish to attempt, from the following (and other) source
http://www.math.hmc.edu/seniorthesis/archives/2001/kbryant/kbryant-2001-thesis.pdf
http://www.lalena.com/ai/tsp/
Formulate the problem as to how we intend to find a solution to it.
Decide the programming language which we wish to use for writing down the solution to the problem.
The following are the feasible options as of now.
Python
Java
C++

And they seem probable in that order

If time remains, start writing sample/demo code to solve the attempted question

Week 3 (Basic Idea: actual actions depend upon previous performance)

Intensive Coding

Intensively code the question at hand. Do it along with reading of tutorials for the programming language chosen. Complete the first draft of the final submission.

Week 4(Winding Up)

Complete the project with all details and with a report of the final result.
Complete all appropriate documentation.
Add or further experiment with ideas that turn out to be interesting and useful

Abstract

We intend to solve (better put, optimize) the travelling salesman problem with the help of genetic algorithms. The choice of this was based on the fact that this was one question which is within reach of our limited knowledge and at the same time is interesting and offers numerous

possibilities. It also offers a lot to learn, at least a data structure, one classical algorithm, and the odds of being able to find a good solution to an NP-complete problem using genetic algorithms. We shall attempt to detail the abstract a bit more once we are on with the project.

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