Bhavyansh Mishra

Data Structures and Algorithms II

Project 3

User’s Manual

Travelling Salesman Problem

*Instructions for Setup and Compilation*

1. Download and Unzip the submission from the eLearning dropbox onto a Linux box in the Multi-Platform Lab.
2. Change directory into the unzipped directory using ‘cd’
3. The extracted/unzipped directory must include the following (at a minimum):
   1. Functional Decomposition document (in .docx format)
   2. User’s Manual (in .docx format)
   3. main.c
   4. genetic.c
   5. grapher.c
   6. brutus.c
   7. genetic.h
   8. grapher.h
   9. brutus.h
   10. Makefile
4. To compile and build the program, use the Makefile provided with the ‘make’ command. Run the command “make” once inside the unzipped folder.

(*Note: This program has been tested on Ubuntu bash on several machines using make*)

(*Remember: This program looks for a file named cityWeights.txt in the same folder as the Makefile, and will not run properly, if this file isn’t provided at the appropriate location. This file should contain exactly 380 floating points in ASCII Text format, separated by newlines*)

1. To run the program, place a file called ‘*cityWeights.txt*’ execute the command “./tsp” to execute the executable file named “tsp” created in the same directory.

**User Input**

Type in the values for the different parameters of the program such as *NumerOfCities, NumberOfRoutesInAGeneration, NumberOfGenerations, and PercentageOfMutations* as instructed by the program itself.

**Output**

All the output will go to the standard output, no relevant external files will be created during the runtime of the program.

The output of the program might look like the following: