

In this design, you would come up with many solutions which as the same shortest path. In this case, you should choose the smallest index number and smallest

number of indexes in your shortest path.

For example, if the shortest path from 1 to 10 is 5, you may get these three paths: 1 -> 4 -> 10 or 1 -> 5 -> 10 or 1 -> 2 -> 3 -> 10. We should choose 1 -> 4 -> 10 path, because it has smallest number of indexes and index 4 is smaller than 5.

### **Files description:**

***These files (HEX files) are used to initial your SRAMs:***

Graph\_small\_wNeg.mem: small graph in hex with negative cycles

Graph\_small\_wNeg.mem: small graph in hex without Negative cycles

Input\_small.mem: small graph input data in hex

Graph\_large\_wNeg.mem: large graph in hex with negative cycles

Graph\_large\_wNeg.mem: large graph in hex without Negative cycles

Input\_large.mem: large graph input data in hex

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***These files (decimal files) are used for high level code (if you need to use them):***

Graph\_small\_wNeg.dat: small graph in decimal with negative cycles

Graph\_small\_wNeg.dat: small graph in decimal without Negative cycles

Input\_small.dat: small graph input data in decimal

Graph\_large\_wNeg.dat: large graph in hex with negative cycles

Graph\_large\_wNeg.dat: large graph in hex without Negative cycles

Input\_large.dat: large graph input data in hex

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***These files are expected output files in decimal (we use these to test your results):***

Output\_small\_wNeg.dat: expected output file with negative cycles

Output\_small\_woNeg.dat: expected output file without negative cycles