

```
suhana@suhana-Inspiron-15-5518:~/Downloads$ g++ -fopenmp dijkstra_parallel.c
suhana@suhana-Inspiron-15-5518:~/Downloads$ ./a.out
Please enter number of threads: 2
Nodes: 256
time cost is 0.008237
suhana@suhana-Inspiron-15-5518:~/Downloads$ g++ -fopenmp dijkstra_serial.cpp
suhana@suhana-Inspiron-15-5518:~/Downloads$ ./a.out

Nodes: 256 time cost is 0.015146
```

```
suhana@suhana-Inspiron-15-5518:~/Downloads$ javac GraphGenerator.java
suhana@suhana-Inspiron-15-5518:~/Downloads$ java GraphGenerator
Generating graph with 8 vertices...
Graph saved to input8.txt
Generating graph with 64 vertices...
Graph saved to input64.txt
Generating graph with 256 vertices...
Graph saved to input256.txt
Generating graph with 512 vertices...
Graph saved to input512.txt
Generating graph with 1024 vertices...
Graph saved to input1024.txt
Generating graph with 2048 vertices...
Graph saved to input2048.txt
```



The screenshot shows a Linux desktop environment with a text editor window titled "input8.txt" open. The window displays a graph input file with 8 vertices. The file content is as follows:

```
1 0 9999999 14 9999999 9999999 12 9999999 6
2 9999999 0 5 9999999 4 4 12 7
3 9999999 14 0 2 13 15 1 9999999
4 3 4 9 0 7 1 1 9999999
5 9999999 9999999 9999999 9999999 0 9999999 14 9999999
6 9999999 9 9999999 9999999 9 0 9999999 5
7 9999999 9 7 9999999 15 9999999 0 9999999
8 9999999 9999999 9999999 5 9999999 12 6 0
```

The desktop environment includes a sidebar with various application icons (e.g., Firefox, LibreOffice, Nautilus) and a top bar showing the date and time as "Nov 21, 00:43". The text editor window has a menu bar with "Open", "Save", and other options. The status bar at the bottom indicates "Plain Text", "Tab Width: 8", "Ln 8, Col 42", and "INS".