Project Report for Critical Path (Project 3)

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Abstract

In project management, a critical path is the sequence of project network activities which add up to the longest overall duration, regardless if that longest duration has float or not. This determines the shortest time possible to complete the project.

Problem Statement

The Critical Path Method or Critical Path Analysis, is a mathematically based algorithm for scheduling a set of project activities It is an important tool for effective project management Commonly used with all forms of projects, including construction, software development, research projects, product development, engineering, and plant maintenance, among others Any project with interdependent activities can apply this method of scheduling

Software Requirements

Operating System: Ubuntu 12
Java version: Java v1.8.0_31
JDK: Oracle Java SE Development Kit 8
Editor: Eclipse, Sublime Text 2
Version Control: Git

Instructions to run the code

To compile the file
```
>javac Main.java
```
To run the program use the following command
```
>java Main PATH_TO_INPUT
```

Runtime, Memory Utilized and Outputs

The program ran using the following VM settings
-Xms2g #Minimum heap space
-Xmx2g #Maximum heap space

Filename	Average Run time in milliseconds	Memory	Expected Result (Length of critical path)	Actual Result (Length of critical path)
in.txt	51	32 MB / 2058 MB	10	10
In-c.txt	98	21 MB/ 2058 MB	183	183
In-d.txt	596	42 MB/ 2058 MB	326	326
In-k.txt	324	42 MB/ 2058 MB	323	323
In-l.txt	112	32 MB / 2058 MB	98	98