Symbolic Scheduling

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Introduction

- Scheduling vs Symbolic Scheduling

Heuristic based Scheduling

An Approach that relies on Heuristics to make decision.

- First-Come-First-Served (FCFS):

- Shortest Job Next (SJN):

- Priority Scheduling:

- Round Robin:

- Deadline-based Scheduling

THE PROBLEM AND CLOUD COMPUTING

- Quality of Service scheduling

- Task scheduling in Cloud Computing
- Makespan,
- Degree of impedance
- System Throughput

Min Min Algorithm

- Smallest estimated execution time

- Allocate it to the resource

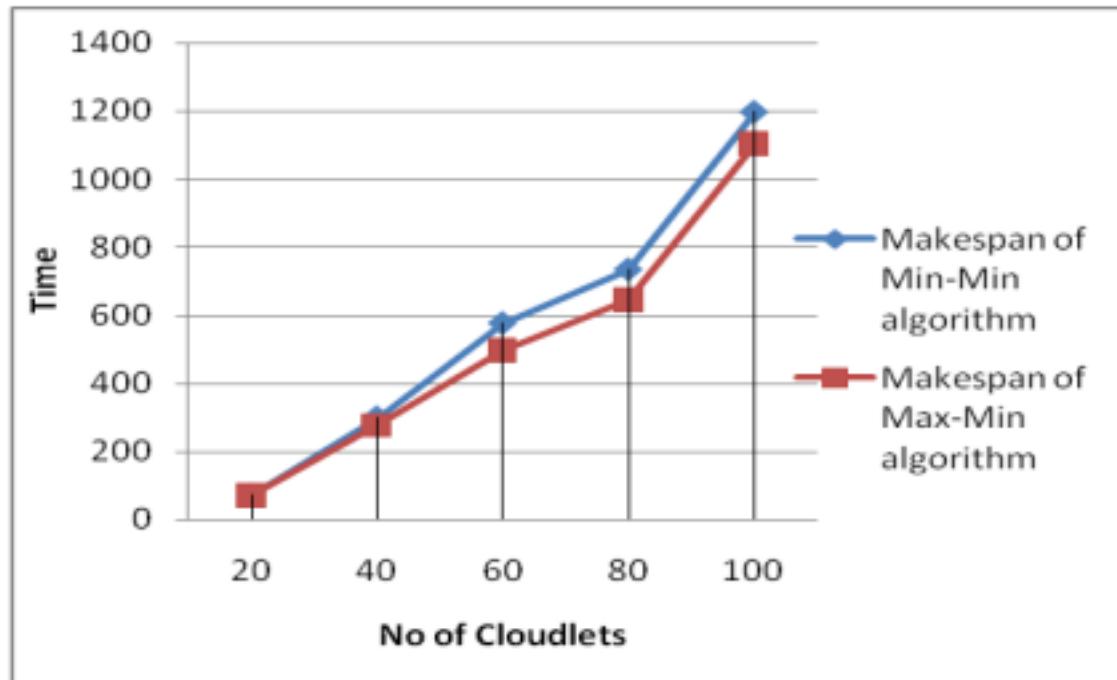Completion time= Tcomp= max(Tfinish= Texe + Tstart)

Implementation of Algorithm

- Min Min vs Max min Algorithm

In cloudsim

Processor	Pentium® Dual-core CPU T4400@2.20GHz,2.20GHz
RAM	8.00GB
System types	32bit operating system
Operating System	Windows 7 Ultimate

VM	RAM	Processing Power(MIPS)	Processing Element
VM1	5024	22000	1
VM2	1048	11000	1

we have run the implementation 20 times for 100 cloudlets and calculated its mean)

No. of tasks	Makespan of Min-Min algorithm	Makespan of Max-Min algorithm
20	71.474	68.556
40	298.753	276.548
60	576.441	496.774
80	734.658	645.886
100	1198.745	1105.885

OPTIMIZED TECHNIQUES

- Genetic Algorithm (GA)
- Harmony Search Algorithm (HS)
- Artificial Bee Colony (ABC)