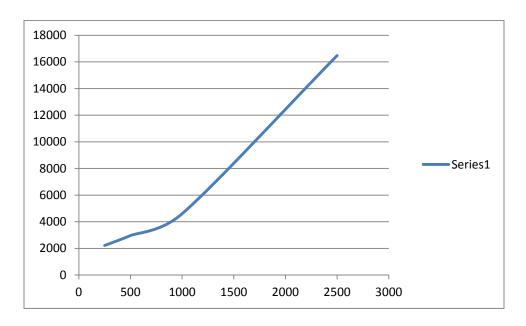
Team Members: Rahul Nyayapathi (03819264)

Soham Talukdar(38975097)

(Number of Nodes are represented on the x-axis and time taken is on the y-axis)

Full Topology using Push-Sum Algorithm:

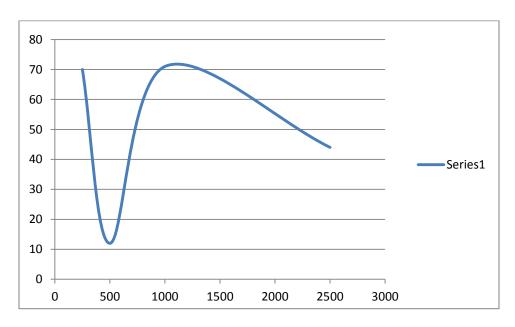
Nodes	time(ms)	topology	Algorithm
250	2219	full	pushsum
500	2963	full	pushsum
1000	4601	full	pushsum
2500	16472	full	pushsum



pushsum full

## Imperfect 2D using Push-Sum Algorithm:

nodes	time(ms)	topology	algorithm
250	70	im2D	pushsum
500	12	im2D	pushsum
1000	71	im2D	pushsum
2500	44	im2D	pushsum



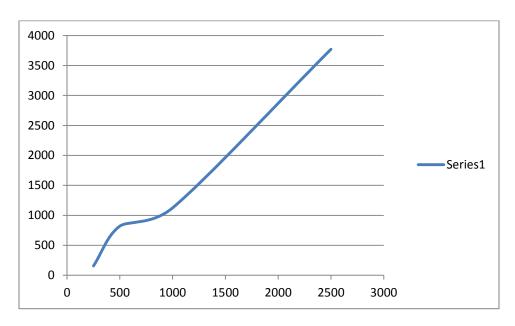
pushsum Imperfect 2D

Line and 2D topologies in Push Sum algorithm is extremely slow so we could not get data for the graph

The time taken for all the other cases increase with increase in the number of nodes except imperfect 2D topology using push sum algorithm as seen in the graphs.

# Full Topology using Gossip Algorithm:

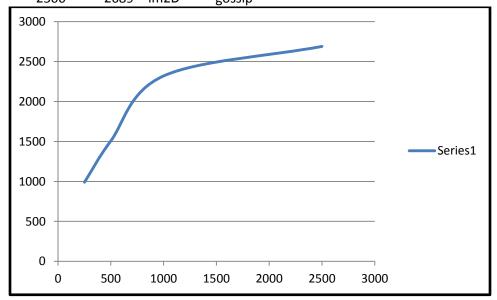
nodes	time(ms)	topology	algorithm
250	156	full	gossip
500	820	full	gossip
1000	1125	full	gossip
2500	3770	full	gossip



gossip full

# Imperfect 2D Topology using Gossip Algorithm:

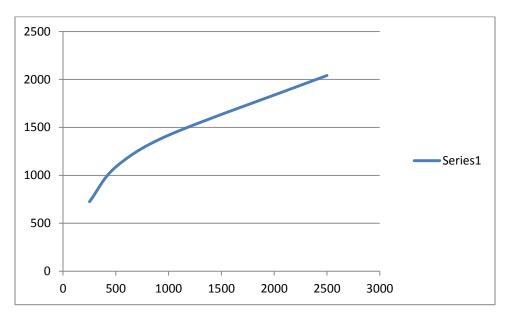
nodes	time(ms)	topology	algorithm
250	990	im2D	gossip
500	1507	im2D	gossip
1000	2320	im2D	gossip
2500	2689	im2D	gossin



gossip Imperfect 2D

# 2D Topology using Gossip Algorithm:

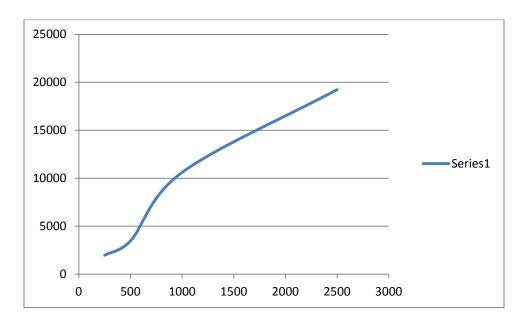
nodes	time(ms)	topology	algorithm
250	725	2D	gossip
500	1088	2D	gossip
1000	1419	2D	gossip
2500	2041	2D	gossip



gossip 2D

# Line Topology using Gossip Algorithm

nodes	time(ms)	topology	algorithm
250	1973	line	gossip
500	3469	line	gossip
1000	10618	line	gossip
2500	19238	line	gossip



gossip line