

Project #3

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To compile and run: `csim64 gcc project#3.c -o project#3`

`./project#3`

Inputs: Enter the mean update value and Enter the mean query generate time

Enter the mean update value(50 to 300): 100

Enter the mean query generate time(25 to 300): 50

Broadcasted IR from server node to all clients at 20.000 seconds

Broadcasted IR is received by clients at 20.800 seconds

Broadcasted IR from server node to all clients at 40.000 seconds

Broadcasted IR is received by clients at 40.800 seconds

Query generated at client side for the id:15 at 50.000 seconds

data item is not cached and hence query request is sending to server at 50.000 seconds

Server recieved the requested query id:15 at 50.000seconds

Broadcasted IR from server node to all clients at 60.000 seconds

Broadcasted IR is received by clients at 60.800 seconds

Server broadcasted the requested data item to clients

Requested data item id:15 is received by the all clients at 60.800 seconds

Broadcasted IR from server node to all clients at 80.000 seconds

Broadcasted IR is received by clients at 80.800 seconds

data update probability at server is 0.534534

Sever updated the cold data item with id 949 at time: 100.000

Query generated at client side for the id:11 at 100.000 seconds

data item is not cached and hence query request is sending to server at 100.000 seconds

Generated IR contains: the following id(s) sending at 100.000 seconds :

949,

Broadcasted IR from server node to all clients at 100.000 seconds

Server recieved the requested query id:11 at 100.000seconds

Broadcasted IR is received by clients at 100.800 seconds

Server broadcasted the requested data item to clients

Requested data item id:11 is received by the all clients at 100.800 seconds

Generated IR contains: the following id(s) sending at 120.000 seconds :

949,

Broadcasted IR from server node to all clients at 120.000 seconds

Broadcasted IR is received by clients at 120.800 seconds

Generated IR contains: the following id(s) sending at 140.000 seconds :

949,

Broadcasted IR from server node to all clients at 140.000 seconds

Broadcasted IR is received by clients at 140.800 seconds

Query generated at client side for the id:4 at 150.000 seconds

data item is not cached and hence query request is sending to server at 150.000 seconds

Server recieved the requested query id:4 at 150.000seconds

Generated IR contains: the following id(s) sending at 160.000 seconds :

949,

Broadcasted IR from server node to all clients at 160.000 seconds

Broadcasted IR is received by clients at 160.800 seconds

Server broadcasted the requested data item to clients

Requested data item id:4 is received by the all clients at 160.800 seconds

Generated IR contains: the following id(s) sending at 180.000 seconds :

949,

Broadcasted IR from server node to all clients at 180.000 seconds

Broadcasted IR is received by clients at 180.800 seconds

data update probability at server is 0.389647

Sever updated the cold data item with id 313 at time: 200.000

Query generated at client side for the id:558 at 200.000 seconds

data item is not cached and hence query request is sending to server at 200.000 seconds

Generated IR contains: the following id(s) sending at 200.000 seconds :

313, 949,

Broadcasted IR from server node to all clients at 200.000 seconds

Server recieved the requested query id:558 at 200.000seconds

Broadcasted IR is received by clients at 200.800 seconds

Server broadcasted the requested data item to clients

Requested data item id:558 is received by the all clients at 200.800 seconds

Generated IR contains: the following id(s) sending at 220.000 seconds :

313, 949,

Broadcasted IR from server node to all clients at 220.000 seconds

Broadcasted IR is received by clients at 220.800 seconds

Generated IR contains: the following id(s) sending at 240.000 seconds :

313, 949,

Broadcasted IR from server node to all clients at 240.000 seconds

Broadcasted IR is received by clients at 240.800 seconds

Query generated at client side for the id:38 at 250.000 seconds

data item is not cached and hence query request is sending to server at 250.000 seconds

Server recieved the requested query id:38 at 250.000seconds

Generated IR contains: the following id(s) sending at 260.000 seconds :

313, 949,

Broadcasted IR from server node to all clients at 260.000 seconds

Broadcasted IR is received by clients at 260.800 seconds

Server broadcasted the requested data item to clients

Requested data item id:38 is received by the all clients at 260.800 seconds

Generated IR contains: the following id(s) sending at 280.000 seconds :

313, 949,

Broadcasted IR from server node to all clients at 280.000 seconds

Broadcasted IR is received by clients at 280.800 seconds

data update probability at server is 0.780237

Sever updated the cold data item with id 830 at time: 300.000

Query generated at client side for the id:15 at 300.000 seconds

Generated IR contains: the following id(s) sending at 300.000 seconds :

313, 830,

Broadcasted IR from server node to all clients at 300.000 seconds

Broadcasted IR is received by clients at 300.800 seconds

data item id:15 is valid in cache and hence it is accessed by the client node 15 at 300.800 seconds

Generated IR contains: the following id(s) sending at 320.000 seconds :

313, 830,

Broadcasted IR from server node to all clients at 320.000 seconds

Broadcasted IR is received by clients at 320.800 seconds

Generated IR contains: the following id(s) sending at 340.000 seconds :

313, 830,

Broadcasted IR from server node to all clients at 340.000 seconds

Broadcasted IR is received by clients at 340.800 seconds

Query generated at client side for the id:543 at 350.000 seconds

data item is not cached and hence query request is sending to server at 350.000 seconds

Server recieved the requested query id:543 at 350.000seconds

Generated IR contains: the following id(s) sending at 360.000 seconds :

313, 830,

Broadcasted IR from server node to all clients at 360.000 seconds

Broadcasted IR is received by clients at 360.800 seconds

Server broadcasted the requested data item to clients

Requested data item id:543 is received by the all clients at 360.800 seconds

Generated IR contains: the following id(s) sending at 380.000 seconds :

313, 830,

Broadcasted IR from server node to all clients at 380.000 seconds

Broadcasted IR is received by clients at 380.800 seconds

data update probability at server is 0.401154

Sever updated the cold data item with id 625 at time: 400.000

Generated IR contains: the following id(s) sending at 400.000 seconds :

625, 830,

Broadcasted IR from server node to all clients at 400.000 seconds

Query generated at client side for the id:876 at 400.000 seconds

data item is not cached and hence query request is sending to server at 400.000 seconds

Server recieved the requested query id:876 at 400.000seconds

Broadcasted IR is received by clients at 400.800 seconds

Server broadcasted the requested data item to clients

Requested data item id:876 is received by the all clients at 410.800 seconds

Generated IR contains: the following id(s) sending at 420.000 seconds :

625, 830,

Broadcasted IR from server node to all clients at 420.000 seconds

Broadcasted IR is received by clients at 420.800 seconds

Generated IR contains: the following id(s) sending at 440.000 seconds :

625, 830,

Broadcasted IR from server node to all clients at 440.000 seconds

Broadcasted IR is received by clients at 440.800 seconds

Query generated at client side for the id:37 at 450.000 seconds

data item is not cached and hence query request is sending to server at 450.000 seconds

Server recieved the requested query id:37 at 450.000seconds

Generated IR contains: the following id(s) sending at 460.000 seconds :

625, 830,

Broadcasted IR from server node to all clients at 460.000 seconds