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// SIR Model Epidemic Simulation
// We added these commands in switch statement in processOperations method in
RmitCovidModelling.java while we are generating data
// For example, if we evaluate SIR Model of the graph, then type "SIREV"

// Evaluation for SIR Model
case "SIREV":
    String[] seedInit = {1;10;20;30;40;50;60;70;80;90;100;110;120, 1;10;20;30;40;50;60,
1;10;20};
    Float[] infectionP = {0.9, 0.5, 0.1};
    Float[] recoverP = {0.9, 0.5, 0.1};
    for(int i = 0; i < 3; i++) {
        for(int j = 0; j < 3; j++) {
            for(int k = 0; k < 3; k++) {
                long startTime1 = System.nanoTime();
                String[] seedVertices = seedInit[i].split(";");
                sirModel.runSimulation(graph, seedVertices, infectionP[j],
recoverP[k], outWriter);
                long endTime1 = System.nanoTime();
                outWriter.println(seedInit[i] + ", " + infectionP[j] + ", " + recoverP[k]);
                outWriter.println("time taken = " + ((double)(endTime1 -
startTime1)) / Math.pow(10, 9) + " sec");
            }
        }
    }

    break;

```