**Bully algorithm**

import java.io.\*;

import java.util.Scanner;

// create class BullyAlgoExample to understand how bully algorithms works

class Main{

// declare variables and arrays for process and their status

static int numberOfProcess;

static int priorities[] = new int[100];

static int status[] = new int[100];

static int cord;

// main() method start

public static void main(String args[]) throws IOException // handle IOException

{

// get input from the user for the number of processes

System.out.println("Enter total number of processes:");

// create scanner class object to get input from user

Scanner sc = new Scanner(System.in);

numberOfProcess = sc.nextInt();

int i;

// use for loop to set priority and status of each process

for(i = 0; i<numberOfProcess; i++)

{

System.out.println("Status for process "+(i+1)+":");

status[i] = sc.nextInt();

System.out.println("Priority of process "+(i+1)+":");

priorities[i] = sc.nextInt();

}

System.out.println("Enter proces which will initiate election");

int ele = sc.nextInt();

sc.close();

// call electProcess() method

electProcess(ele);

System.out.println("After electing process the final coordinator is "+cord);

}

// create electProcess() method

static void electProcess(int ele)

{

ele = ele - 1;

cord = ele + 1;

for(int i = 0; i<numberOfProcess; i++)

{

if(priorities[ele]<priorities[i])

{

System.out.println("Election message is sent from "+(ele+1)+" to "+(i+1));

if(status[i]==1)

electProcess(i+1);

}

}

}

}

