

//Group 5 Queue-single Server Assignment

/* Group Members

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***/**

#include <iostream>
using namespace std;

int main() {

//Single Server Que:

//arrays to hold values

int i, j, run = 15;
int RN_Arr[15] = {82,91,12,77,90,75,33,61,19,58,41,54,52,16,86};
int IAT[15] = {4,5,1,4,5,4,2,3,1,3,2,3,3,1,4};
float ATC[15] = {1.04, 1.09, 1.11, 1.14, 1.11, 1.23, 1.25, 1.28, 1.29, 1.32, 1.34, 1.37, 1.41, 1.41, 1.45};
int RN_Ser[15] = {93,59,76,62,40,41,51,91,93,38,92,22,9,7,65};
int ST[15] = {6,3,5,4,3,3,3,6,6,3,6,2,1,1,4};
float TS_Begin[15] =
{1.04,1.11,1.13,1.18,1.22,1.25,1.28,1.31,1.37,1.44,1.46,1.52,1.54,1.55,1.56};
float TS_End[15] =
{1.11,1.13,1.18,1.23,1.25,1.28,1.31,1.37,1.43,1.46,1.52,1.54,1.55,1.56,2.01};
int Customer_Queue[15] = {0,1,1,1,1,1,1,1,2,2,3,3,4,5,5};
int Idle[15] = {4,0,0,0,0,0,0,0,0,0,0,0,0,0,0};
int Delay[15] = {0,1,3,4,3,2,3,3,8,11,12,15,14,14,11};

cout<< " Customers \t RN(Arr) \t IAT \t AT_on_CLOCK \t RN(Service) \t
Service_Time \t Time_Service_Begin \t Time_Service_End \t Customer_In_Queue \t
Server_Idle_Time \t Delay";

for (j=0; j<=run; j++){

cout <<" \n "<<j + 1<<" \t "<<RN_Arr[j]<<" \t "<<IAT[j]<<" \t "<<ATC[j]<<" \t
"<<RN_Ser[j]<<" \t "<<ST[j]<<" \t "<<TS_Begin[j]<<" \t "<<TS_End[j]<<" \t
"<<Customer_Queue[j]<<" \t "<<Idle[j]<<" \t "<<Delay[j]<<" \n ";
}
}