**National University of Modern Languages**

Logo

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**Lab Report#01**

**Roll # 2340**

**Class: BSCS 5B Morning**

**Subject: Operating System(Lab)**

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**FCFS(Without Arrival Time):**

// C++ program for implementation of FCFS

// scheduling

#include<iostream>

using namespace std;

// Function to find the waiting time for all

// processes

void **findWaitingTime**(int processes[], int n,int bt[], int wt[])

{

// waiting time for first process is 0

wt[0] = 0;

// calculating waiting time

for (int i = 1; i < n ; i++ )

wt[i] = bt[i-1] + wt[i-1] ;

}

// Function to calculate turn around time

void **findTurnAroundTime**( int processes[], int n,int bt[], int wt[], int tat[])

{

// calculating turnaround time by adding

// bt[i] + wt[i]

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

tat[i] = bt[i] + wt[i];

}

//Function to calculate average time

void **findavgTime**( int processes[], int n, int bt[])

{

int wt[n], tat[n], total\_wt = 0, total\_tat = 0;

//Function to find waiting time of all processes

findWaitingTime(processes, n, bt, wt);

//Function to find turn around time for all processes

findTurnAroundTime(processes, n, bt, wt, tat);

//Display processes along with all details

cout << "Processes "<< " Burst time "<< " Turn around time " << "Waiting time\n";

// Calculate total waiting time and total turn

// around time

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

{

total\_wt = total\_wt + wt[i];

total\_tat = total\_tat + tat[i];

cout << "P" << i+1 << "\t\t" << bt[i] <<"\t\t "<< tat[i] <<"\t\t" << wt[i] <<endl;

}

cout << "Average waiting time = "<< (float)total\_wt / (float)n;

cout << "\nAverage turn around time = "<< (float)total\_tat / (float)n;

}

// Driver code

int **main**()

{

//process id's

int processes[] = { 1, 2, 3,4};

int n = sizeof processes / sizeof processes[0];

//Burst time of all processes

int burst\_time[] = {21,3,6,2};

findavgTime(processes, n, burst\_time);

return 0;

}

**Output:**

A screenshot of a computer

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