CPU Scheduling

Operating System-YBL

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01

Introduction

Students Name
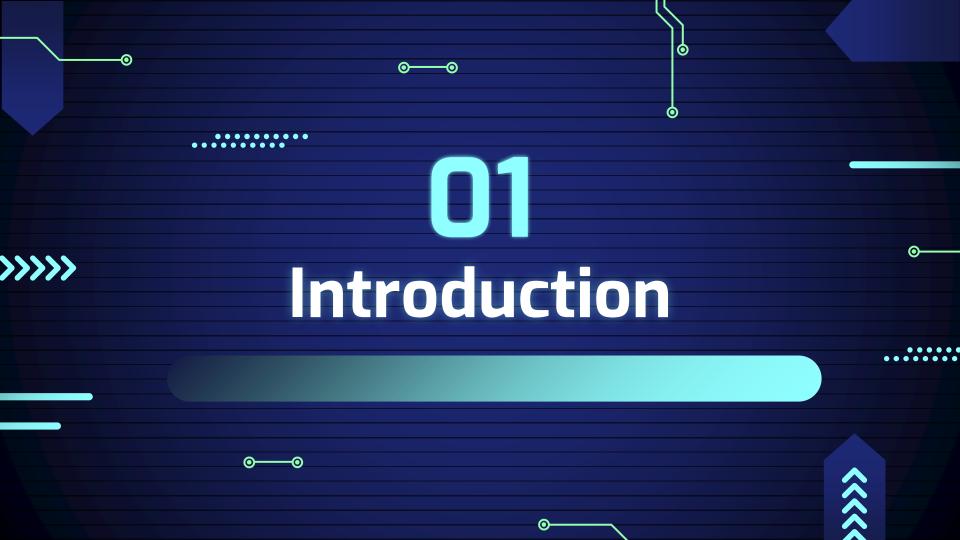
Shatha salem Al-Fakeh   2110105
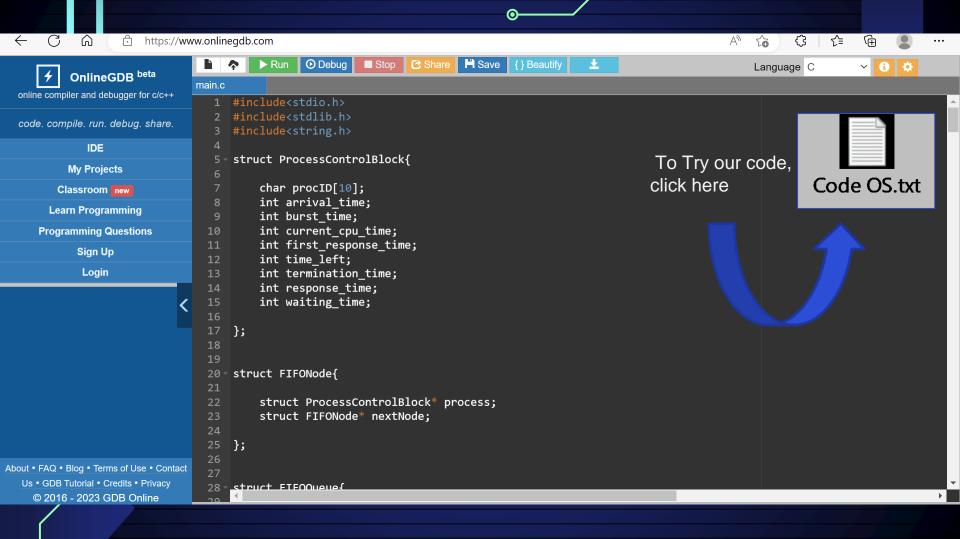Jumana Mohammed   2110533
Reem Almabdi   2111137

OUR Project

We worked together as one group members and help each other on all the steps

02

Our code

```c
#include<stdio.h>
#include<stdlib.h>
#include<string.h>

struct ProcessControlBlock{

    char procID[10];
    int arrival_time;
    int burst_time;
    int current_cpu_time;
    int first_response_time;
    int time_left;
    int termination_time;
    int response_time;
    int waiting_time;

};


struct FIFONode{

    struct ProcessControlBlock* process;
    struct FIFONode* nextNode;

};

struct FIFOQueue{
```

03

Output

Enter Process Count>> 3

Enter Process P1's Arrival Time>> 3
Enter Process P1's Burst Time>> 23

Enter Process P2's Arrival Time>> 0
Enter Process P2's Burst Time>> 8

Enter Process P3's Arrival Time>> 2
Enter Process P3's Burst Time>> 44

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~Q0 RR=8~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

P-ID | Arrival | Burst | Start | Finish | Response Time | Waiting Time |

P1 | 3 | 23 | 16 | 55 | 13 | 29 |
P2 | 0 | 8 | 0 | 8 | 0 | 0 |
P3 | 2 | 44 | 8 | 75 | 6 | 29 |

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~Q1 RR=16~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

P-ID | Arrival | Burst | Start | Finish | Response Time | Waiting Time |

P1 | 3 | 23 | 16 | 55 | 13 | 29 |
P3 | 2 | 44 | 8 | 75 | 6 | 29 |

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~Q1 FCFS~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

P-ID | Arrival | Burst | Start | Finish | Response Time | Waiting Time |

```
Enter Process P3's Arrival Time>> 2
Enter Process P3's Burst Time>> 44

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~Q0 RR=8~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

  P-ID  |    Arrival   |    Burst   |    Start   |    Finish   |   Response Time   |   Waiting Time   |

   P1   |      3       |     23     |     16     |     55      |        13         |       29         |
   P2   |      0       |      8     |      0     |      8      |         0         |        0         |
   P3   |      2       |     44     |      8     |     75      |         6         |       29         |


~~~~~~~~~~~~~~~~~~~~~~~~~~~~~Q1 RR=16~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

  P-ID  |    Arrival   |    Burst   |    Start   |    Finish   |   Response Time   |   Waiting Time   |

   P1   |      3       |     23     |     16     |     55      |        13         |       29         |
   P3   |      2       |     44     |      8     |     75      |         6         |       29         |


~~~~~~~~~~~~~~~~~~~~~~~~~~~~~Q1 FCFS~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

  P-ID  |    Arrival   |    Burst   |    Start   |    Finish   |   Response Time   |   Waiting Time   |

   P3   |      2       |     44     |      8     |     75      |         6         |       29         |


~~~~ Average Waiting Time:   19.3333 m/s
~~~~ Average Response Time:  6.33333 m/s
~~~~ Throughput Time:        25 m/s

...Program finished with exit code 0
Press ENTER to exit console.
```

04

Dicreption

Features of Multilevel Feedback Queue Scheduling:

FIRST

It is more flexible

SECOND

It allows different processes to move between different queues.

THIRD

It prevents starvation by moving a process that waits too long form the lower priority queue to the higher priority queue.

How can use our program?

STEP 1

Enter Number of Process

STEP 2

Enter Bursent Time of process

STEP 3

Enter Arrival Time of process

STEP 4

displaying the Response Time, Throughput, and Average Waiting Time

We Hope That Our Project Was clear