FIFO

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Interactive C Course

main.c

```c
#include<stdio.h>
int main()
{
    int incomingStream[] = {4 , 1 , 2 , 4 , 3, 2 , 1, 5};
    int pageFaults = 0;
    int frames = 3;
    int m, n, s, pages;
    pages = sizeof(incomingStream)/sizeof(incomingStream[0]);
    printf(" Incoming \ t Frame 1 \ t Frame 2 \ t Frame 3 ");
    int temp[ frames ];
    for(m = 0; m < frames; m++)
    {
        temp[m] = -1;
    }
    for(m = 0; m < pages; m++)
    {
        s = 0;
        for(n = 0; n < frames; n++)
        {
            if(incomingStream[m] == temp[n])
            {
                s++;
                pageFaults--;
            }
        }
        pageFaults++;
        if((pageFaults <= frames) && (s == 0))
```

Output

```
/tmp/j4RrX03cfU.o
Incoming  t Frame 1  t Frame 2  t Frame 3
4             4        -          -
1             4        1          -
2             4        1          2
4             4        1          2
3             3        1          2
2             3        1          2
1             3        1          2
5             3        5          2
Total Page Faults:  5
```

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main.c

```c
        {
            s++;
            pageFaults--;
        }
    }
    pageFaults++;
    if((pageFaults <= frames) && (s == 0))
    {
        temp[m] = incomingStream[m];
    }
    else if(s == 0)
    {
        temp[(pageFaults - 1) % frames] = incomingStream[m];
    }
    printf("\n");
    printf("%d\t\t\t",incomingStream[m]);
    for(n = 0; n < frames; n++)
    {
        if(temp[n] != -1)
            printf(" %d\t\t\t", temp[n]);
        else
            printf(" - \t\t\t");
    }
}
printf("\nTotal Page Faults:\t%d\n", pageFaults);
return 0;
}
```

Output

```
/tmp/j4RrX03cfU.o
Incoming  t Frame 1  t Frame 2  t Frame 3
4             4        -          -
1             4        1          -
2             4        1          2
4             4        1          2
3             3        1          2
2             3        1          2
1             3        1          2
5             3        5          2
Total Page Faults:  5
```