

Assignment - B6

Code

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#include<iostream>
using namespace std;

int blksize[] = {100, 500, 200, 300, 600};
int processes[] = {212, 417, 112, 426};

void firstfit(int pr[], int pr_size, int blk[], int blk_size)
{
    for(int i = 0; i < pr_size; i++)
    {
        bool check = false;
        for(int j = 0; j < blk_size; j++)
        {
            if((blk[j] - pr[i]) >= 0)
            {
                blk[j] = blk[j] - pr[i];
                cout<<"\nProcess with value "<<pr[i]<<" allocated at
block "<<j+1;
                check = true;
                break;
            }
        }
        if(!check)
        {
            cout<<"\nProcess with value "<<pr[i]<<" not allocated";
        }
    }
}

void bestfit(int pr[], int pr_size, int blk[], int blk_size)
{
    for(int i = 0; i < pr_size; i++)
    {
        bool check = false;
        int k, store = 999;
        for(int j = 0; j < blk_size; j++)
        {
            if((blk[j] - pr[i]) >= 0 && (blk[j] - pr[i]) < store)
            {
                k = j + 1;
                store = blk[j] - pr[i];
            }
        }
        if(store != 999)
        {
            blk[k] = blk[k] - pr[i];
            cout<<"\nProcess with value "<<pr[i]<<" allocated at
block "<<k;
        }
    }
}
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        check = true;
    }
}
if(!check)
{
    cout<<"\nProcess with value "<<pr[i]<<" not allocated";
}
else{
    blk[k - 1] = blk[k - 1] - pr[i];
    cout<<"\nProcess with value "<<pr[i]<<" allocated at block
" <<k;
}
}

void worstfit(int pr[], int pr_size, int blk[], int blk_size)
{
    for(int i = 0; i < pr_size; i++)
    {
        bool check = false;
        int k, store = -1;
        for(int j = 0; j < blk_size; j++)
        {
            if((blk[j] - pr[i]) >= 0 && (blk[j] - pr[i]) > store)
            {
                k = j + 1;
                store = blk[j] - pr[i];
                check = true;
            }
        }
        if(!check)
        {
            cout<<"\nProcess with value "<<pr[i]<<" not allocated";
        }
        else{
            blk[k - 1] = blk[k - 1] - pr[i];
            cout<<"\nProcess with value "<<pr[i]<<" allocated at block
" <<k;
        }
    }
}

void nextfit(int pr[], int pr_size, int blk[], int blk_size)
{
    int j = 0;
    for(int i = 0; i < pr_size; i++)
    {
        bool check = false;
        for(int k = 0; k < blk_size; k++)
        {
            if((blk[j] - pr[i]) >= 0)
            {
                blk[j] = blk[j] - pr[i];

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        cout<<"\nProcess with value "<<pr[i]<<" allocated at
block "<<j+1;
            check = true;
            break;
        }
        j = (j + 1) % blk_size;
    }
    if(!check)
    {
        cout<<"\nProcess with value "<<pr[i]<<" not allocated";
    }
}
}

int main()
{
    int blk_size = sizeof(blksize)/sizeof(blksize[0]);
    int pr_size = sizeof(processes)/sizeof(processes[0]);

    //firstfit(processes, pr_size, blksize, blk_size);
    //bestfit(processes, pr_size, blksize, blk_size);
    //worstfit(processes, pr_size, blksize, blk_size);
    nextfit(processes, pr_size, blksize, blk_size);
    return 0;
}

```

Output

```

$ g++ Code-B6.cpp && ./a.out

Process with value 212 allocated at block 2
Process with value 417 allocated at block 5
Process with value 112 allocated at block 5
Process with value 426 not allocated[overnion]

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