CPU SCHEDULING ALGORITHM

“EXPERIMENT 5”

FORLEDISKA AMELIA SITORUS P

17.01.53.2006

WORST FIT

forlediska@RACHEL-FASP: ~

```
void main()
{
        int frag[max],b[max],f[max],i,j,nb,nf,temp;
        static int bf[max],ff[max];

        printf("\n\tMemory Management Scheme - First Fit");
        printf("\nEnter the number of blocks:");
        scanf("%d",&nb);
        printf("Enter the number of files:");
        scanf("%d",&nf);
        printf("\nEnter the size of the blocks:-\n");
        for(i=1;i<=nb;i++)
        {
                printf("Block %d:",i);
                scanf("%d",&b[i]);
        }
        printf("Enter the size of the files :-\n");
        for(i=1;i<=nf;i++)
        {
                printf("File %d:",i);
                scanf("%d",&f[i]);
        }
        for(i=1;i<=nf;i++)
        {
                for(j=1;j<=nb;j++)
                {
                        if(bf[j]!=1)
                        {
                                temp=b[j]-f[i]; if(temp>=0)
                                {
                                        ff[i]=j;
                                        break;
                                }
                        }
                }
                frag[i]=temp;
                bf[ff[i]]=1;
        }
        printf("\nFile_no:\tFile_size :\tBlock_no:\tBlock_size:\tFragement");
        for(i=1;i<=nf;i++)
                printf("\n%d\t\t%d\t\t%d\t\t%d\t\t%d",i,f[i],ff[i],b[ff[i]],frag[i]);
```

forlediska@RACHEL-FASP: ~

```
forlediska@RACHEL-FASP:~$ ./worstfit.out

        Memory Management Scheme - First Fit
Enter the number of blocks:3
Enter the number of files:2

Enter the size of the blocks:-
Block 1:5
Block 2:2
Block 3:7
Enter the size of the files :-
File 1:1
File 2:4

File_no:        File_size :     Block_no:       Block_size:     Fragement
1               1               1               5               4
forlediska@RACHEL-FASP:~$
```

BEST FIT

forlediska@RACHEL-FASP: ~

```
#define max 25

void main()
{
        int frag[max],b[max],f[max],i,j,nb,nf,temp,lowest=10000;
        static int bf[max],ff[max];

        printf("\nEnter the number of blocks:");
        scanf("%d",&nb);
        printf("Enter the number of files:");
        scanf("%d",&nf);
        printf("\nEnter the size of the blocks:-\n");
        for(i=1;i<=nb;i++)
                printf("Block %d:",i);scanf("%d",&b[i]);

        printf("Enter the size of the files :-\n");
        for(i=1;i<=nf;i++)
        {
                printf("File %d:",i);
                scanf("%d",&f[i]);
        }
        for(i=1;i<=nf;i++)
        {
                for(j=1;j<=nb;j++)
                {
                        if(bf[j]!=1)
                        {
                                temp=b[j]-f[i];
                                if(temp>=0)
                                        if(lowest>temp)
                                        {
                                                ff[i]=j;
                                                lowest=temp;
                                        }
                        }
                }
                frag[i]=lowest;
                bf[ff[i]]=1;
                lowest=10000;
        }
        printf("\nFile No\tFile Size \tBlock No\tBlock Size\tFragment");
        for(i=1;i<=nf && ff[i]!=0;i++)
                printf("\n%d\t\t%d\t\t%d\t\t%d\t\t%d",i,f[i],ff[i],b[ff[i]],frag[i]);
```

forlediska@RACHEL-FASP: ~

```
forlediska@RACHEL-FASP:~$ ./bestfit.out

Enter the number of blocks:4
Enter the number of files:3

Enter the size of the blocks:-
Block 1:3
Block 2:4
Block 3:5
Block 4:6
Enter the size of the files :-
File 1:3
File 2:4
File 3:5

File No File Size       Block No        Block Size      Fragment
1               3               1               3               0
2               4               2               4               0
forlediska@RACHEL-FASP:~$
```

FIRST FIT

forlediska@RACHEL-FASP: ~

```
void main()
{
        int frag[max],b[max],f[max],i,j,nb,nf,temp,highest=0;
        static int bf[max],ff[max];


        printf("\n\tMemory Management Scheme - Worst Fit");
        printf("\nEnter the number of blocks:");
        scanf("%d",&nb);
        printf("Enter the number of files:");
        scanf("%d",&nf);
        printf("\nEnter the size of the blocks:-\n");
        for(i=1;i<=nb;i++)
        {
                printf("Block %d:",i);
                scanf("%d",&b[i]);
        }
        printf("Enter the size of the files :-\n");
        for(i=1;i<=nf;i++)
        {
                printf("File %d:",i);
                scanf("%d",&f[i]);
        }
        for(i=1;i<=nf;i++)
        { for(j=1;j<=nb;j++)
                { if(bf[j]!=1)  //if bf[j] is not allocated
                        { temp=b[j]-f[i];

                                if(temp>=0)
                                        if(highest<temp)
                                        {
                                                ff[i]=j; highest=temp;
                                        }
                        }
                }
                frag[i]=highest;
                bf[ff[i]]=1;
                highest=0;
        }
        printf("\nFile_no:\tFile_size :\tBlock_no:\tBlock_size:\tFragement");
        for(i=1;i<=nf;i++)
                printf("\n%d\t\t%d\t\t%d\t\t%d\t\t%d",i,f[i],ff[i],b[ff[i]],frag[i]);
}
"firstfit.c" 47L, 973C
```

forlediska@RACHEL-FASP: ~

```
forlediska@RACHEL-FASP:~$ ./firtstfit.out
-bash: ./firtstfit.out: No such file or directory
forlediska@RACHEL-FASP:~$ ./firstfit.out

        Memory Management Scheme - Worst Fit
Enter the number of blocks:4
Enter the number of files:3

Enter the size of the blocks:-
Block 1:4
Block 2:5
Block 3:6
Block 4:7
Enter the size of the files :-
File 1:4
File 2:5
File 3:6

File_no:        File_size :     Block_no:       Block_size:     Fragement
1               4               4               7               3
2               5               3               6               1
forlediska@RACHEL-FASP:~$
```