WEEK 9 OS LAB

1BM21CS238

Write a C program to simulate paging technique of memory management. (create a logical memory space, physical memory space and page table, you should show the address translation entirely)

SOURCE CODE:-

#include<stdio.h>

#include<conio.h>

main()

{

int ms, ps, nop, np, rempages, i, j, x, y, pa, offset;

int s[10], fno[10][20];

clrscr();

printf("\nEnter the memory size -- ");

scanf("%d",&ms);

printf("\nEnter the page size -- ");

scanf("%d",&ps);

nop = ms/ps;

printf("\nThe no. of pages available in memory are -- %d ",nop);

printf("\nEnter number of processes -- ");

scanf("%d",&np);

rempages = nop;

for(i=1;i<=np;i++)

{

printf("\nEnter no. of pages required for p[%d]-- ",i);

scanf("%d",&s[i]);

if(s[i] >rempages)

{

printf("\nMemory is Full");

break;

}

rempages = rempages - s[i];

printf("\nEnter pagetable for p[%d] --- ",i);

for(j=0;j<s[i];j++)

scanf("%d",&fno[i][j]);

}

printf("\nEnter Logical Address to find Physical Address ");

printf("\nEnter process no. and pagenumber and offset -- ");

scanf("%d %d %d",&x,&y, &offset);

if(x>np || y>=s[i] || offset>=ps)

printf("\nInvalid Process or Page Number or offset");

else

{ pa=fno[x][y]\*ps+offset;

printf("\nThe Physical Address is -- %d",pa);

}

getch();

}

OUTPUT:-

