Noman Ahmed
DT-22032

Operating System (CT-353)

Lab no 10

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Implement the above code and paste the screen shot of the output.

CODE:

#include <stdio.h>

#include <conio.h>

int main() {

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

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

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

   scanf("%d", &ms);

   printf("Enter the page size: ");

   scanf("%d", &ps);

   nop = ms / ps;

   printf("The number of pages available in memory: %d", nop);

   printf("\nEnter the number of processes: ");

   scanf("%d", &np);

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```c
rempages = nop;


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

    printf("\nEnter number of pages required for p[%d]: ", i);

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


    if (s[i] > rempages) {

        printf("\nMemory is Full");

        break;

    }


    rempages -= s[i];


    printf("Enter page table for p[%d]:\n", i);

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

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

    }

}


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

printf("\nEnter process number, page number, and offset: ");
```

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


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

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

  } else {

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

     printf("The Physical Address is: %d", pa);

  }


  getch();

  return 0;

}
```

OUTPUT:

```
Enter the memory size: 4
Enter the page size: 3
The number of pages available in memory: 1
Enter the number of processes: 2

Enter number of pages required for p[1]: 1
Enter page table for p[1]:
2

Enter number of pages required for p[2]: 3

Memory is Full
Enter Logical Address to find Physical Address
Enter process number, page number, and offset: 2
1
3

Invalid Process or Page Number or Offset
```