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SEIT

Batch : D

Aim: Assume that a system has a 32-bit virtual address with a 4-KB page size. Write a C program that is passed a virtual address (in decimal) on the command line and have it output the page number and offset for the given address. As an example, your program would run as follows:

`./a.out 19986`

Your program would output:

The address 19986 contains:

page number = 4

offset = 3602

Writing this program will require using the appropriate data type to store 32 bits. We encourage you to use unsigned data types as well.

Code:

```
#include<stdio.h>
```

```
int main(){
```

```
    unsigned int LA,P;
```

```
    printf("Enter LA and page size:");
```

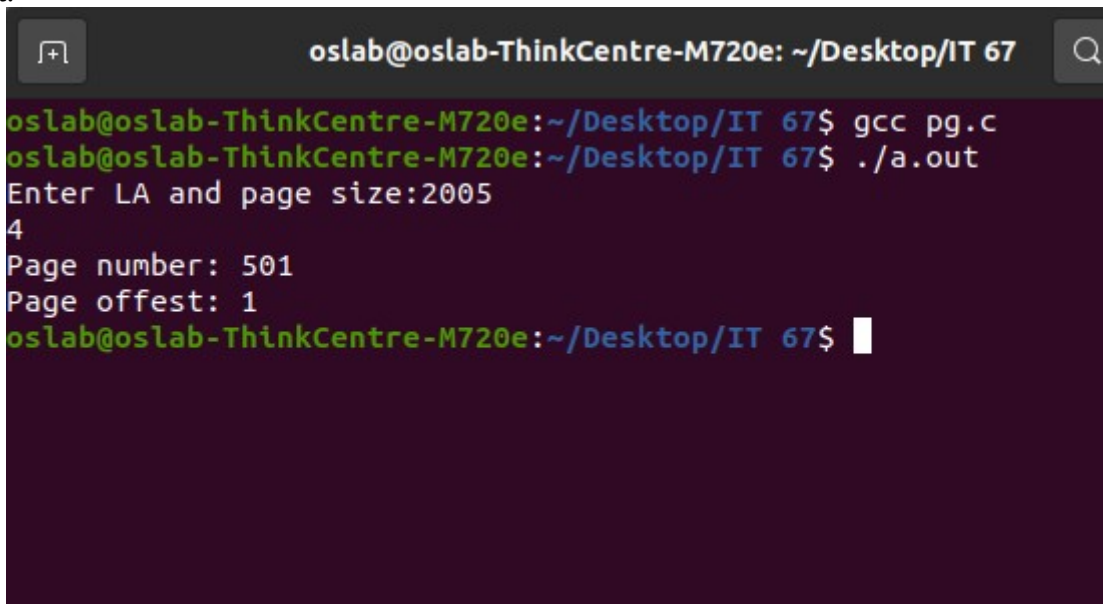
```
    scanf("%d %d",&LA,&P);
```

```
    printf("Page number: %d\nPage offset: %d\n",LA/P,LA%P);
```

```
    return 0;
```

```
}
```

Output:

A terminal window with a dark purple background. The title bar reads "oslab@oslab-ThinkCentre-M720e: ~/Desktop/IT 67". The terminal shows the following commands and output:

```
oslab@oslab-ThinkCentre-M720e:~/Desktop/IT 67$ gcc pg.c
oslab@oslab-ThinkCentre-M720e:~/Desktop/IT 67$ ./a.out
Enter LA and page size:2005
4
Page number: 501
Page offset: 1
oslab@oslab-ThinkCentre-M720e:~/Desktop/IT 67$
```