

Threading Hello

Problem 1

Calculate Power in C

Create a thread that can calculate the power of a number

Giving an Equation like 2^3 and you should calculate it

Hints-> must split the string using (strtok) function

Create all arrays dynamic

Simple input

2^3

Simple output

Thread Id is 10233547

The result is 8

Problem 2

The below code runs, but executes with an incorrect output. Fix the code to make sure it runs correctly by adding a mutex lock.

```
#include<stdio.h>

#include<string.h>

#include<pthread.h>

#include<stdlib.h>

#include<unistd.h>

pthread_t tid[2];

int counter;

void* doSomething(void *arg)
{
    unsigned long i = 0;

    counter += 1;

    printf("\n Job %d started\n", counter);

    for(i=0; i<(0xFFFFFFFF);i++);

    printf("\n Job %d finished\n", counter);
```

```
    return NULL;

}

int main(void)

{

    int i = 0;

    int err;

    while(i < 2)

    {

        err = pthread_create(&(tid[i]), NULL, &doSomething, NULL);

        if (err != 0)

            printf("\ncan't create thread :[%s]", strerror(err));

        i++;

    }

    pthread_join(tid[0], NULL);

    pthread_join(tid[1], NULL);

    return 0;
```

