EXPERIMENT 12

#include <stdio.h>

#include <stdlib.h>

#include <pthread.h>

#include <semaphore.h>

#include <unistd.h>

int sum = 0;

sem\_t mutex;

void \*add(void \*arg)

{

int \*ptr = (int \*) arg;

while(\*ptr != -1)

{

sem\_wait(&mutex);

sum += \*ptr;

printf("value: %d sum %d\n", \*ptr,sum );

sem\_post(&mutex);

ptr++;

}

return NULL;

}

int main(int argc, char \*args[])

{

int A[4] = {1,3,4,-1};

int B[4] = {4,3,5,-2};

pthread\_t t\_a, t\_b;

sem\_init(&mutex, 0, 1);

pthread\_create(&t\_a , NULL, add, A);

pthread\_create(&t\_b, NULL, add, B);

pthread\_join(t\_a, NULL);

pthread\_join(t\_b, NULL);

printf("Total: %d\n", sum);

return 0;

}