Class Examples 23

Q1. Write a program in order to simulate the Race condition.

```
  GNU nano 6.2                                    l23.c
#include<unistd.h>
#include<pthread.h>
#include<stdio.h>
void *fun1();
void *func2();
int sharevalue=1;
int main(){
pthread_t thread1,thread2;
pthread_create(&thread1,NULL,fun1,NULL);
pthread_create(&thread2,NULL,func2,NULL);
pthread_join(thread1,NULL);
pthread_join(thread2,NULL);

printf("The final sharevalue is %d\n" ,sharevalue);
}
void *fun1(){
int x;
x=sharevalue;
printf("initail update thread1 have the sharvalue is %d\n",x);
x++;
printf("the update thread1 is %d\n",x);
sleep(1);
sharevalue=x;

}
```

```
  GNU nano 6.2                          l23.c
int x;
x=sharevalue;
printf("initail update thread1 have the sharvalue is %d\n",x);
x++;
printf("the update thread1 is %d\n",x);
sleep(1);
sharevalue=x;

}
void *func2(){
int y;
y=sharevalue;
printf("initail update thread1 have the sharvalue is %d\n",y);
y--;
printf("the update thread1 is %d\n",y);
//sleep(1);
sharevalue=y;
printf("the share value is %d\n",sharevalue);
}
```

```
munawarjohar@munawarjohar-VirtualBox:~/Munawar/A/ABC$ nano l23.c
munawarjohar@munawarjohar-VirtualBox:~/Munawar/A/ABC$ gcc l23.c
munawarjohar@munawarjohar-VirtualBox:~/Munawar/A/ABC$ ./a.out
initail update thread1 have the sharvalue is 1
the update thread1 is 0
the share value is 0
initail update thread1 have the sharvalue is 0
the update thread1 is 1
The final sharevalue is 1
munawarjohar@munawarjohar-VirtualBox:~/Munawar/A/ABC$
```