***Computer Programming Paradigm Lab***

***Lab Experiment No. 8***

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Batch: C Div: D10A

**Aim:** Implement multi-threading in C++.

**Problem Statement & Output:**

Write a program to display Even and Odd numbers alternatively, using threads.

#include <iostream>

#include <thread>

#include <mutex>

#include <condition\_variable>

using namespace std;

mutex mu;

condition\_variable cond;

int count = 1;

void PrintOdd()

{

for (; count < 10;)

{

unique\_lock<mutex> locker(mu);

cond.wait(locker, []()

{ return (count % 2 == 1); });

cout << "From Odd : " << count << endl;

count++;

locker.unlock();

cond.notify\_all();

}

}

void PrintEven()

{

for (; count < 10;)

{

unique\_lock<mutex> locker(mu);

cond.wait(locker, []()

{ return (count % 2 == 0); });

cout << "From Even: " << count << endl;

count++;

locker.unlock();

cond.notify\_all();

}

}

int main()

{

cout << "D10A\_60\_Shashwat Tripathi" << endl

<< endl;

thread t1(PrintOdd);

thread t2(PrintEven);

t1.join();

t2.join();

return 0;

}

