

Lab 6: Multithreading Concepts in (Java, C ++, Python).

1) Write a program in **Java and Python** to check whether two numbers are amicable or not. Both the number are generated by separate thread name of this thread is CSA and CSB. Amicable Number If two numbers are such that the sum of the perfect divisors of one number is equal to the other number and the sum of the perfect divisors of the other number is equal to the first number, then the numbers are called Amicable Numbers.

Example: 220 and 284.

2) A bank account is operated by a father and his son. The account is opened with an initial deposit of Rs. 600. Thereafter, the father deposits a random amount between Rs. 1 and Rs. 200 each time, until the account balance crosses Rs. 2000. the son can start withdraws random amount only if the balance exceeds Rs. 2000. thereafter, the son withdraws random amount between Rs 1 and Rs. 150, until the balance goes below Rs. 500. Once the balances become less than Rs. 500, the father deposits amount till it crosses Rs. 2,000 and the process continues. Write a Father Deposits amount till it crosses Rs. 2000 and the process continues. Write a father and son thread to carry out the above process. (Program implement in **C++ and JAVA**).

3) Create two threads one for even numbers and second for odd numbers. Sequentially print Even and Odd numbers (1 to 1000) using Inter Thread concept. **(JAVA)**.