Worksheet 7

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Branch:CSE-AIML **Section/Group 21AIML-9(Grp A)**
Semester:3rd **Date of Performance:15/10/22**
Subject Name: Programing in java **Subject Code: : 21CSH-244**

1. Aim/Overview of the practical:

Write a java program using thread synchronization in multithreading.

2. Algorithm:

Step-1 Start
Step-2 Create a class and implement the runnable class.
Step-3 Declare an object for thread.
Step-4 Create a string that will have the name of current running thread.
Step-5 Use synchronization for threads.
Step-6 Create a main class and initialize the threads.
Step-7 Use start to start the thread.
Step-8 Stop

3. Code:

```java
class A implements Runnable {
    int token = 1;
    public void run() {
        synchronized (this) {
            Thread t = Thread.currentThread();
            String name = t.getName();
            System.out.println(token + ".....alloted to " + name);
            token++;
        }
    }
}
class synchronization {
    public static void main(String[] args) {
        A a1 = new A();
        Thread t1 = new Thread(a1);
        Thread t2 = new Thread(a1);
        Thread t3 = new Thread(a1);
        t1.setName("t1");
        t2.setName("t2");
        t3.setName("t3");
        t1.start();
        t2.start();
        t3.start();
    }
}
```

Output :

```
Caused by: java.lang.ClassNotFoundException:
PS D:\java> cd "d:\java\" ; if ($?) { javac s
1.....alloted to t1
2.....alloted to t3
3.....alloted to t2
PS D:\java> []
```

Learning outcomes (What I have learnt):
- Understand the concept of creating class.
- Understand the concept of default constructor of the class.
- Understand the concept of a new operator.
- Understand the concept of conditional statements in java.

Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.	Viva		10
2.	Performance		12
3.	Worksheet		8