

Assignment 6: Lab assignment Threads

Q1. Filedownloader use threads for better cpu utilization, we need to create an application to simulate processing of filedownloader consider we have some photos on dropbox

<https://www.dropbox.com/photo1.jpg>
<https://www.dropbox.com/photo2.jpg>
...
...
<https://www.dropbox.com/photo25.jpg>

Modify the code to use threads so that performance of application can be improved

Q2. Synchronizing a method, In this lab we will learn how to use synchronization in Java, that is, the use of the synchronized keyword to control the concurrent access to a method. Only one execution thread will access one of the methods of an object declared with the synchronized keyword. If another thread tries to access any method declared with the synchronized keyword of the same object, it will be suspended until the first thread finishes the execution of the method.

```
public class Account {  
    private double balance;  
    //getter setter  
    public void addAmount(double amount) {  
        //  
    }  
    public void subtractAmount(double amount) {  
        //  
    }  
}
```

Now same account object is used by Bank and Company class, bank trying to subtract Rs 1000 , 100 time and
Company trying to deposit Rs 1000, 100 time(refer lab code)

Now we need to ensure that total amount must be consistent (Apply synchronization method and block)