COP5615 DOS Project-1

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No of Group member(s): 1

Size of Work unit

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Solution:
Two classes are created.
1. masterclass: This class takes in the user input of N and K.
It then divides the work among 10 actors equally.
Each actor is given the range of operands on which it needs to operate.
For example, if N=1000, the range of 1st Actor is 1 to 100,2nd actor is 101 to 200 and so on.
Each actor is suppose to send the list of results back to masterClass.
Masterclass displays the same.
2. work : This class gets its share of operands and then processes them using a function: cal to
determine exactly the numbers satisfying the condition.
The actors in the class send back the result to the master.

Work Unit: Each actor gets equal range of numbers to operate upon as explained above.

Output for scala Project1 1000000 4

==========
rmohan@lin114-10:~/pgms$ time scala cal 1000000 4
The result:List()

real 0m1.414s
user 0m2.412s
sys 0m0.056s

As seen from the above, the List is empty.

Running time for scala project1 1000000 4

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rmohan@lin114-10:~/pgms$ time scala cal 1000000 4
The result:List()

real 0m1.414s
user 0m2.412s
sys 0m0.056s

CPU time= user time + sys time

Hence, # of cores used in the computation = CPU time/real time

= 1.745 (Executed on a dual core machine)

Largest problem managed to solve

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```
time scala Project1 50000000 4
The result:List()

The list is empty.
```