

4B OS LAB-08 ASSIGNMENT

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Question 01:

```
1  #include <thread>
2  #include <iostream>
3  using namespace std;
4  // assg question 01
5  class ArithmeticSeries
6  {
7      private:
8          int nth_term;
9          int difference;
10         int first_term;
11         int series;
12
13     public:
14         ArithmeticSeries(int n,int d,int a){
15             nth_term=n;
16             difference=d;
17             first_term=a;
18             series=0;
19         }
20
21         void operator()(){
22             cout<<endl<<"Arithmetic Sequence " <<endl;
23             for (int i=1;i<nth_term;i++){
24                 if(i==1){
25                     cout<<first_term<<endl;
26                 }
27                 else{
28                     series = first_term+(i*difference);
29                     cout<<series<<endl;
30                 }
31             }
32         }
33     };
34     int main(){
35         ArithmeticSeries series(7,5,3);
36         thread thread(ref(series));
37         thread.join();
38         return 0;
39     }
40
```

Arithmetic Sequence

3
13
18
23
28
33

Process exited after 0.1051 seconds with return value 0
Press any key to continue . . . ■

Question 02:

```
1  #include <iostream>
2  #include <thread>
3  using namespace std;
4  // assg question 02
5  class SumANDMultiply{
6      private:
7          int n;
8          int sum;
9          int mul;
10
11      public:
12          SumANDMultiply(int number){
13              n=number;
14              sum=0;
15              mul=1;
16          }
17          int getSum() const{
18              return sum;
19          }
20          int getMul() const{
21              return mul;
22          }
23          void operator()(){
24              for(int i=1;i<=n;i++){
25                  mul=mul*i;
26                  sum=sum+i;
27              }
28          }
29  };
30  int main(){
31      SumANDMultiply SumANDMultiplyObj1(10);
32      SumANDMultiply SumANDMultiplyObj2(10);
33      thread threadObj1( ref(SumANDMultiplyObj1) );
34      threadObj1.join();
35      cout<<"Sum : "<<SumANDMultiplyObj1.getSum()<<endl;
36
37      thread threadObj2( ref(SumANDMultiplyObj2) );
38      threadObj2.join();
39      cout<<"Mul : "<<SumANDMultiplyObj2.getMul()<<endl;
40      return 0;
41  }
```

```
Sum : 55  
Mul : 3628800
```

```
-----  
Process exited after 0.1043 seconds with return value 0  
Press any key to continue . . .
```

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