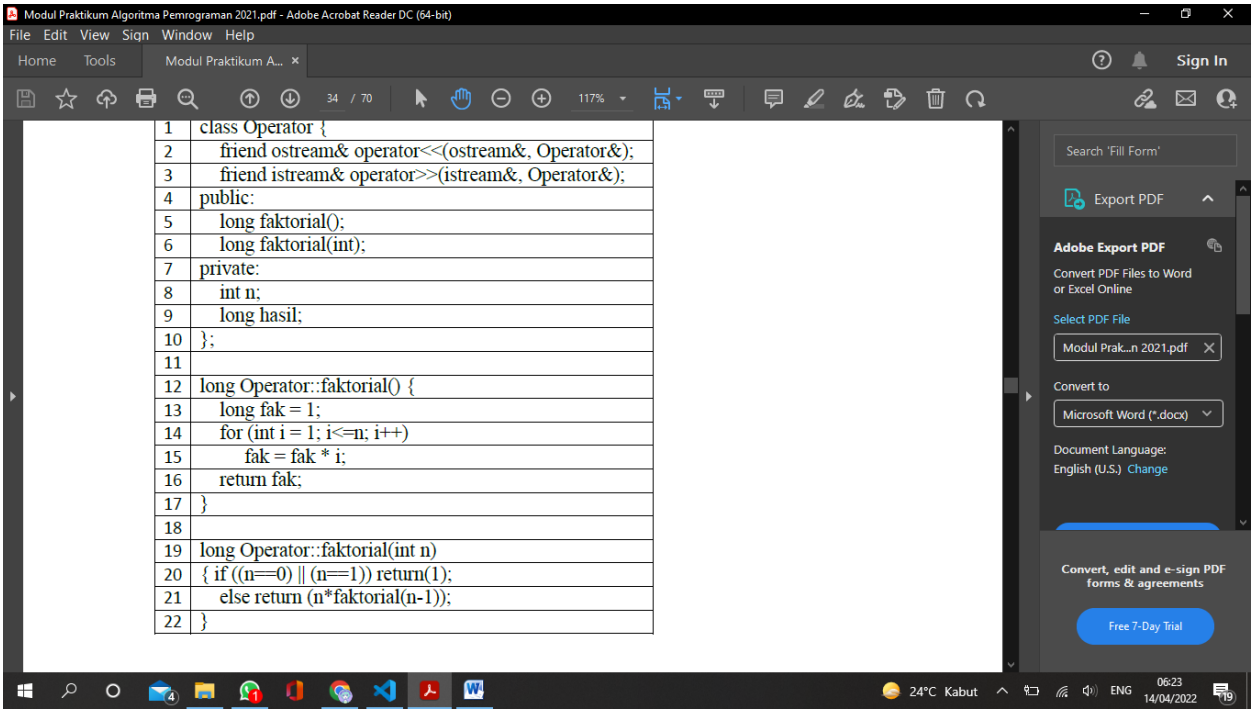
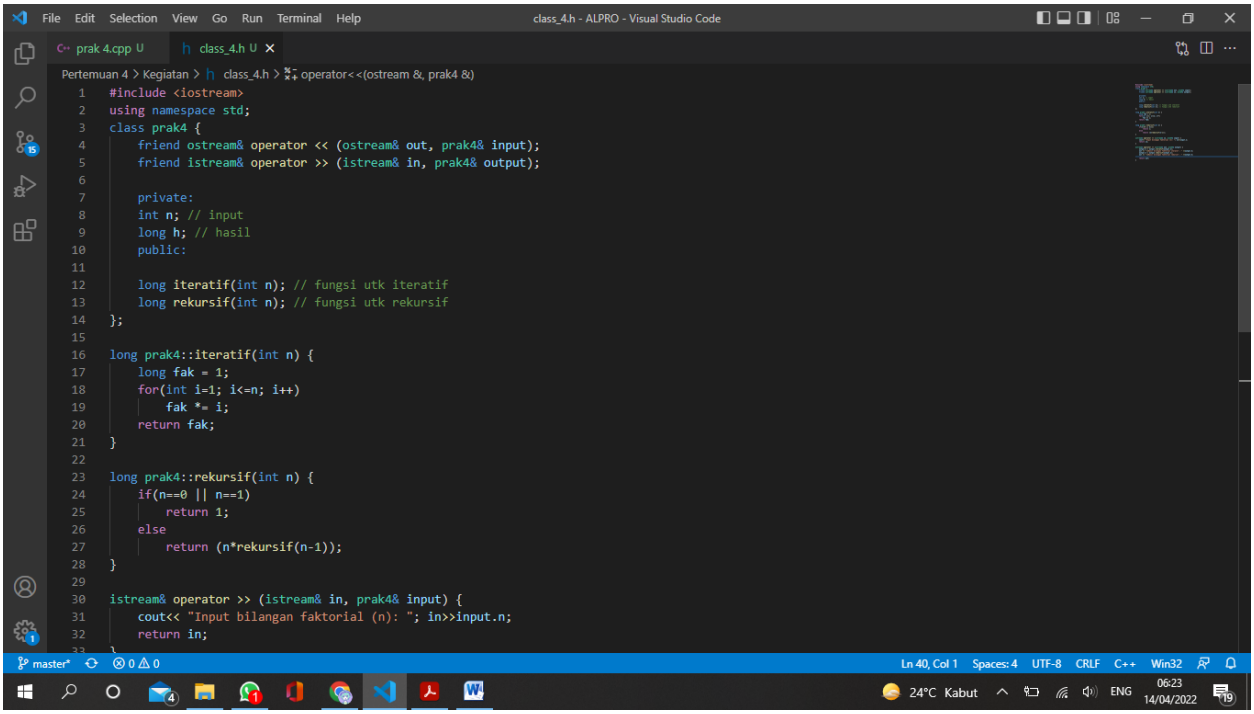
KEGIATAN 4

1. Mengetik program berikut

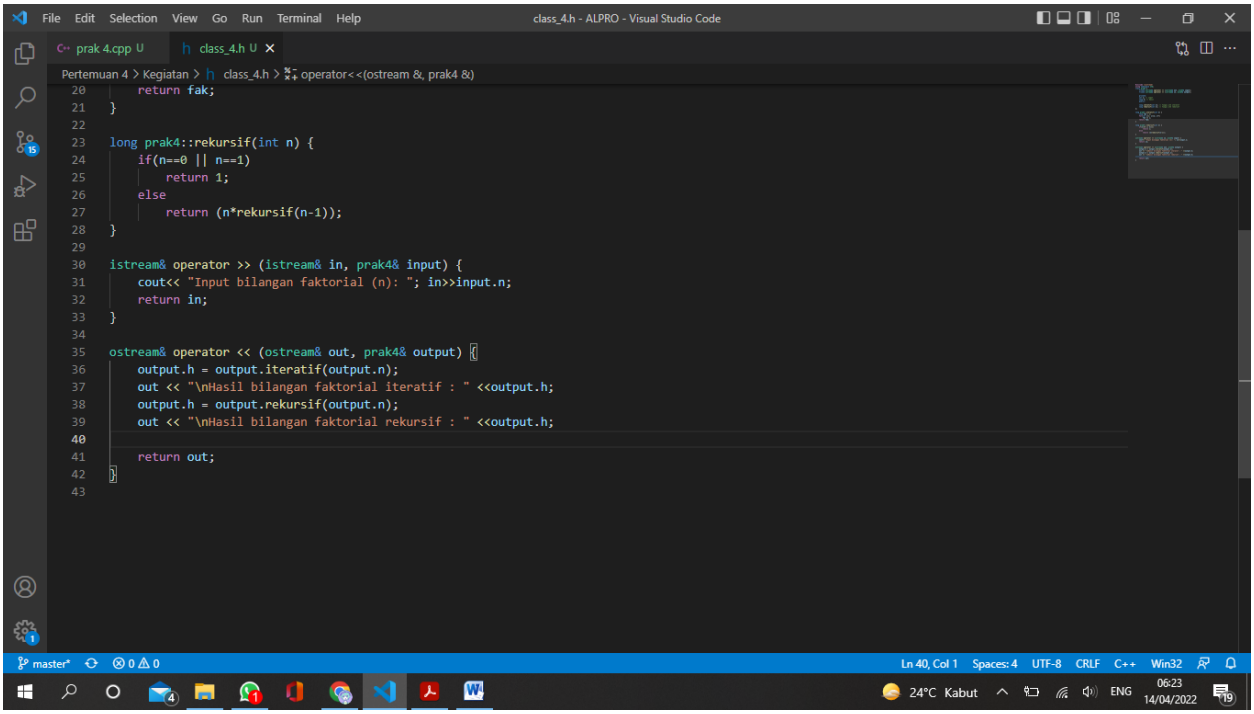


```
1  class Operator {
2     friend ostream& operator<<(ostream&, Operator&);
3     friend istream& operator>>(istream&, Operator&);
4  public:
5     long faktorial();
6     long faktorial(int);
7  private:
8     int n;
9     long hasil;
10 };
11
12 long Operator::faktorial() {
13    long fak = 1;
14    for (int i = 1; i<=n; i++)
15       fak = fak * i;
16    return fak;
17 }
18
19 long Operator::faktorial(int n)
20 { if ((n==0) || (n==1)) return(1);
21    else return (n*faktorial(n-1));
22 }
```

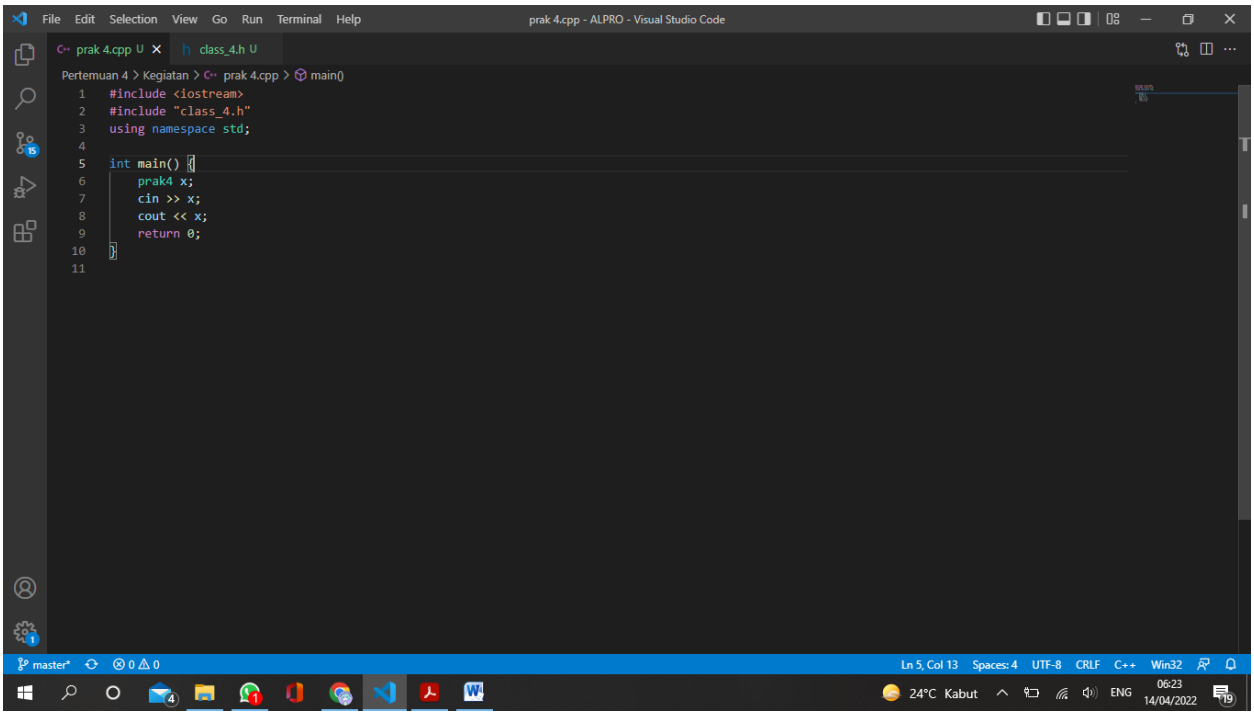
Hasil :



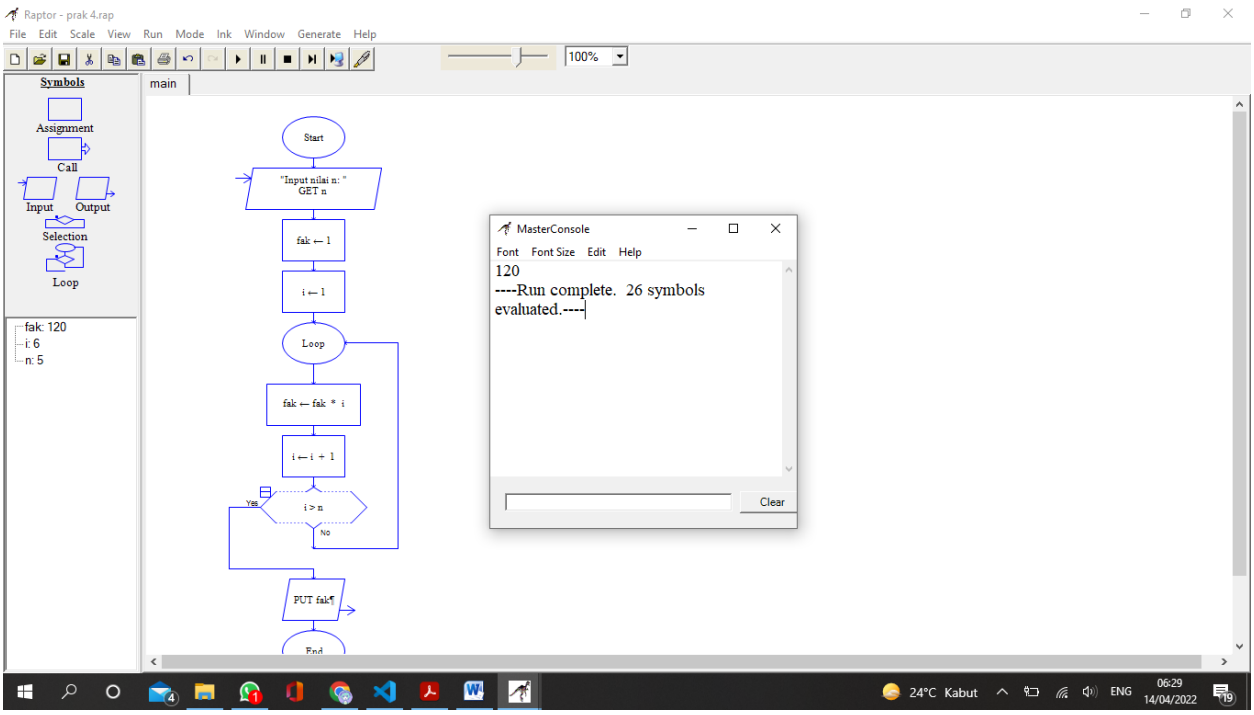
```
#include <iostream>
using namespace std;
class prak4 {
    friend ostream& operator << (ostream& out, prak4& input);
    friend istream& operator >> (istream& in, prak4& output);

    private:
    int n; // input
    long h; // hasil
    public:

    long iteratif(int n); // fungsi utk iteratif
    long rekursif(int n); // fungsi utk rekursif
};

long prak4::iteratif(int n) {
    long fak = 1;
    for(int i=1; i<=n; i++)
        fak *= i;
    return fak;
}

long prak4::rekursif(int n) {
    if(n==0 || n==1)
        return 1;
    else
        return (n*rekursif(n-1));
}

istream& operator >> (istream& in, prak4& input) {
    cout<< "Input bilangan faktorial (n): "; in>>input.n;
    return in;
}
```



Fungsi dipanggil di :



2. Buat flowchart raptor untuk fungsi iteratif



3. Buat flowchart raptor dari untuk fungsi rekursif