# LAPORAN PRAKTIKUM ALGORITMA DAN PEMROGRAMAN

*"Nomor 5, 9, 15, 18"*


Nama:

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**PROGRAM STUDI TEKNIK INFORMATIKA**

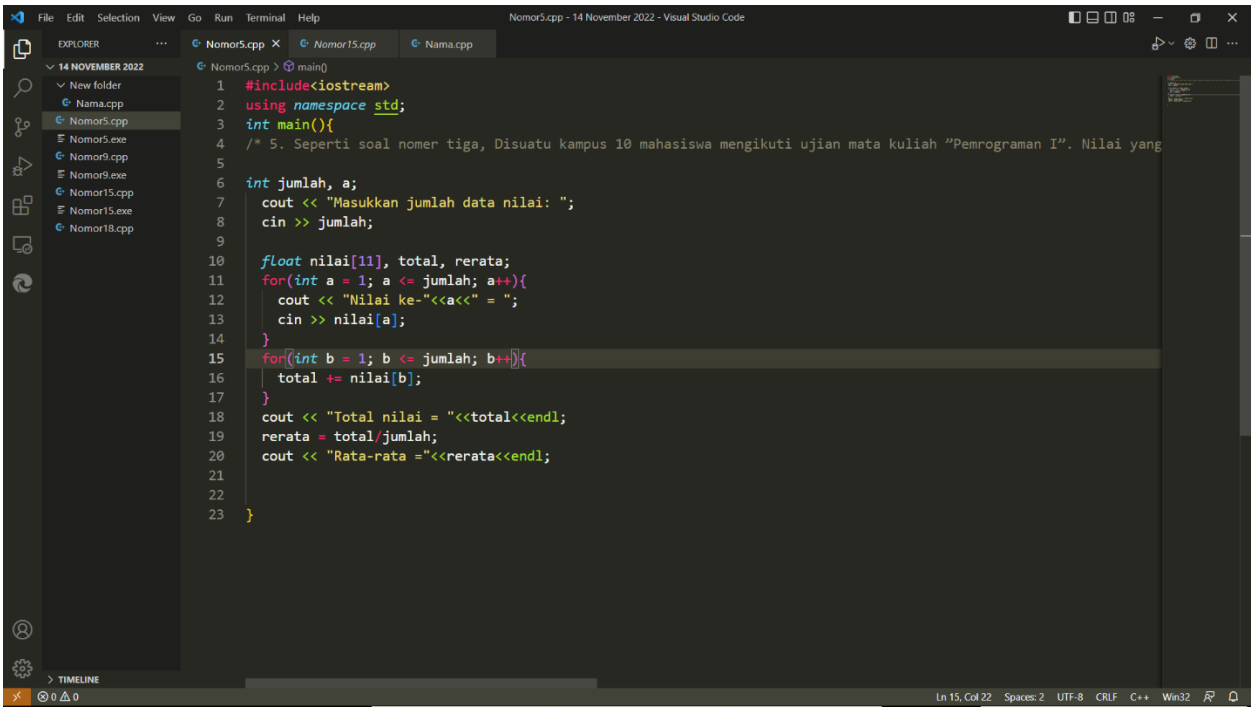
**UNIVERSITAS PANCASILA**

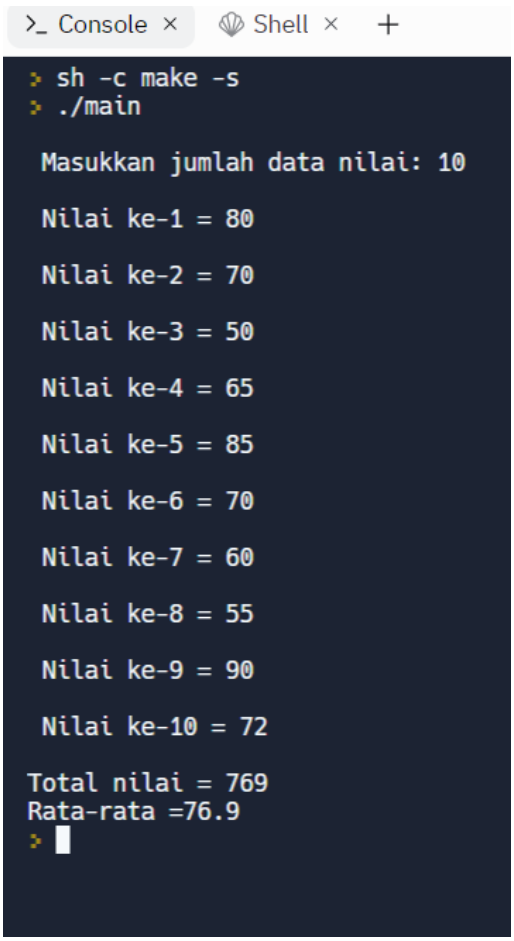
**2022**

**Nomor 5**

```
#include<iostream>
using namespace std;
int main(){
/* 5. Seperti soal nomer tiga, Disuatu kampus 10 mahasiswa
mengikuti ujian mata kuliah ”Pemrograman I”. Nilai yang
dihasilkan oleh ke 10 mahasiswa tersebut adalah 80, 70, 50,
65, 85, 70, 60, 55, 90, 72. Dengan bantuan program C++.
Buatlah input data dari nilai tersebut dan nilai rata-
ratanya */
int jumlah, a;
  cout << "Masukkan jumlah data nilai: ";
  cin >> jumlah;
  float nilai[11], total, rerata;
  for(int a = 1; a <= jumlah; a++){
    cout << "Nilai ke-"<<a<<" = ";
    cin >> nilai[a];
  }
  for(int b = 1; b <= jumlah; b++){
    total += nilai[b];
  }
  cout << "Total nilai = "<<total<<endl;
  rerata = total/jumlah;
  cout << "Rata-rata ="<<rerata<<endl;

}
```


File Edit Selection View Go Run Terminal Help
Nomor5.cpp - 14 November 2022 - Visual Studio Code
EXPLORER
14 NOVEMBER 2022
New folder
Nama.cpp
Nomor5.cpp
Nomor5.exe
Nomor9.cpp
Nomor9.exe
Nomor15.cpp
Nomor15.exe
Nomor18.cpp
Nomor5.cpp
Nomor15.cpp
Nama.cpp
Nomor5.cpp > main()
#include<iostream>
using namespace std;
int main(){
/* 5. Seperti soal nomer tiga, Disuatu kampus 10 mahasiswa mengikuti ujian mata kuliah ”Pemrograman I”. Nilai yang
int jumlah, a;
cout << "Masukkan jumlah data nilai: ";
cin >> jumlah;
float nilai[11], total, rerata;
for(int a = 1; a <= jumlah; a++){
cout << "Nilai ke-"<<a<<" = ";
cin >> nilai[a];
}
for(int b = 1; b <= jumlah; b++){
total += nilai[b];
}
cout << "Total nilai = "<<total<<endl;
rerata = total/jumlah;
cout << "Rata-rata ="<<rerata<<endl;
}
TIMELINE
Ln 15, Col 22 Spaces: 2 UTF-8 CRLF C++ Win32


Console
Shell
sh -c make -s
./main
Masukkan jumlah data nilai: 10
Nilai ke-1 = 80
Nilai ke-2 = 70
Nilai ke-3 = 50
Nilai ke-4 = 65
Nilai ke-5 = 85
Nilai ke-6 = 70
Nilai ke-7 = 60
Nilai ke-8 = 55
Nilai ke-9 = 90
Nilai ke-10 = 72
Total nilai = 769
Rata-rata =76.9

Pseudocode
Deklarasi variabel
Int: jumlah, a

Read (nilai [11], total, rerata)

```
for(int a = 1; a <= jumlah; a++){
   cout << "Nilai ke-"<<a<<" = ";
   cin >> nilai[a];
 }
 for(int b = 1; b <= jumlah; b++){
   total += nilai[b];
 }
Endfor
Endfor
```

Write (rerata = total/jumlah;)

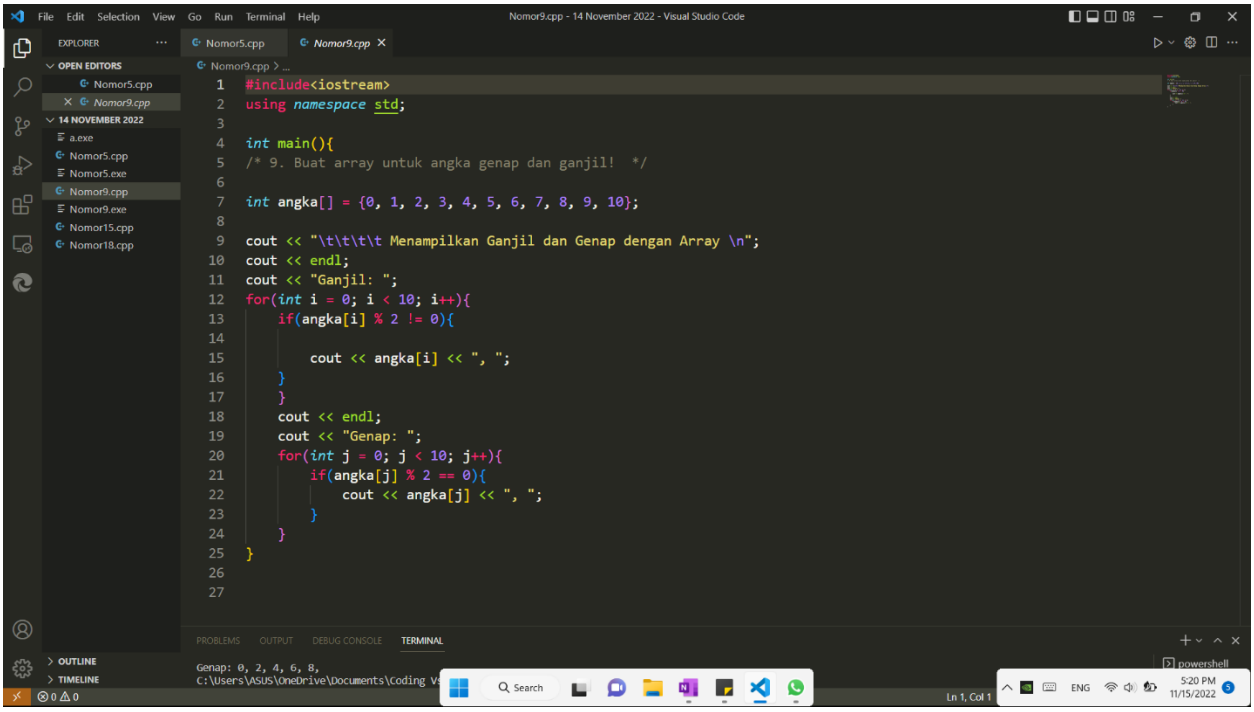
**Nomor 9**

```
#include<iostream>
using namespace std;
int main(){
/* 9. Buat array untuk angka genap dan ganjil!  */

int angka[] = {0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10};

cout << "\t\t\t\t Menampilkan Ganjil dan Genap dengan Array
\n";
cout << endl;
cout << "Ganjil: ";
for(int i = 0; i < 10; i++){
    if(angka[i] % 2 != 0){
        cout << angka[i] << ", ";
    }
```

```
    }
    cout << endl;
    cout << "Genap: ";
    for(int j = 0; j < 10; j++){
        if(angka[j] % 2 == 0){
            cout << angka[j] << ", ";
        }
    }
}
```




```
PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL

Microsoft Windows [Version 10.0.22621.819]
(c) Microsoft Corporation. All rights reserved.

C:\Users\ASUS\OneDrive\Documents\Coding Vs Code\Tugas\14 November 2022>g++ Nomor9.cpp -o Nomor9.exe

C:\Users\ASUS\OneDrive\Documents\Coding Vs Code\Tugas\14 November 2022>Nomor9
                        Menampilkan Ganjil dan Genap dengan Array

Ganjil: 1, 3, 5, 7, 9,
Genap: 0, 2, 4, 6, 8,
C:\Users\ASUS\OneDrive\Documents\Coding Vs Code\Tugas\14 November 2022>
```

Pseudocode
Deklarasi variabel
*int* angka[] = {0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10};

Read (angka)

```
for(int i = 0; i < 10; i++){
   if(angka[i] % 2 != 0){
      cout << angka[i] << ", ";
   }
   }
for(int j = 0; j < 10; j++){
      if(angka[j] % 2 == 0){
Endfor
Endfor
```

Write (angka [j], angka [i])

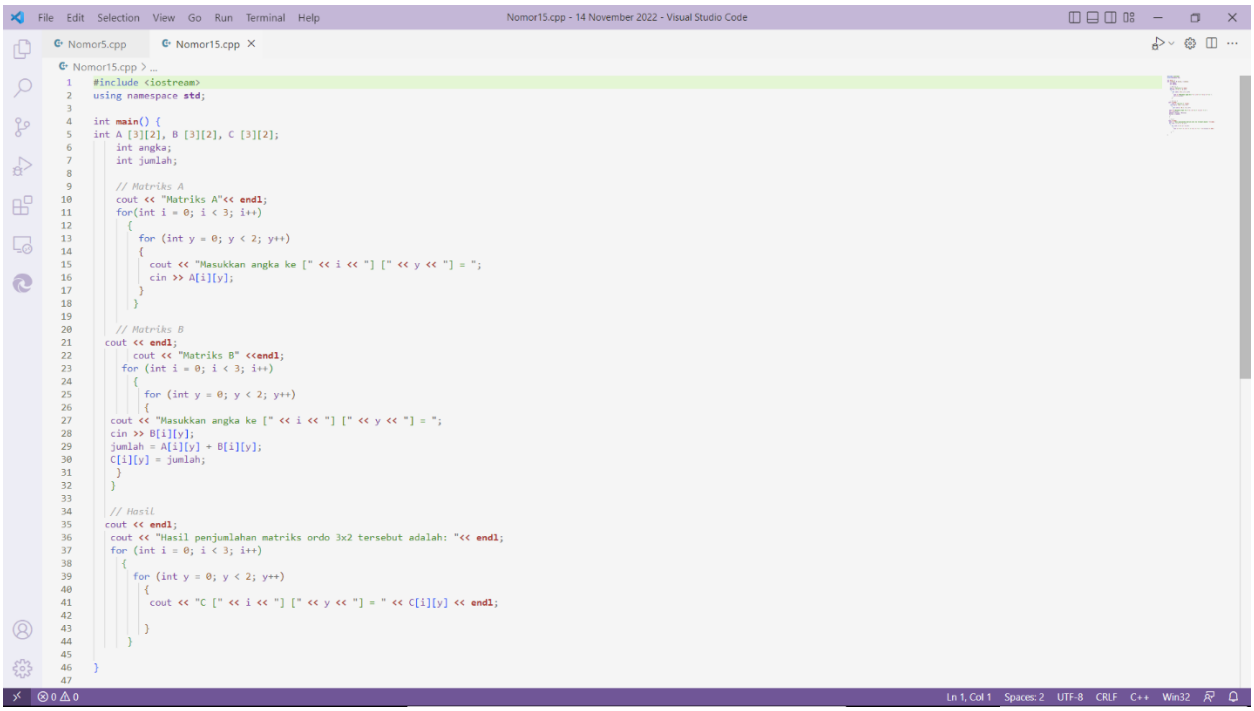
**Nomor 15**

```
#include <iostream>
using namespace std;
int main() {
int A [3][2], B [3][2], C [3][2];
    int angka;
    int jumlah;
    // Matriks A
    cout << "Matriks A"<< endl;
    for(int i = 0; i < 3; i++)
      {
        for (int y = 0; y < 2; y++)
        {
```

```
          cout << "Masukkan angka ke [" << i << "] [" << y
<< "] = ";
          cin >> A[i][y];
         }
        }

    // Matriks B
  cout << endl;
       cout << "Matriks B" <<endl;
     for (int i = 0; i < 3; i++)
       {
         for (int y = 0; y < 2; y++)
         {
   cout << "Masukkan angka ke [" << i << "] [" << y << "] =
";
   cin >> B[i][y];
   jumlah = A[i][y] + B[i][y];
   C[i][y] = jumlah;
    }
   }
   // Hasil
  cout << endl;
   cout << "Hasil penjumlahan matriks ordo 3x2 tersebut
adalah: "<< endl;
   for (int i = 0; i < 3; i++)
     {
       for (int y = 0; y < 2; y++)
         {
          cout << "C [" << i << "] [" << y << "] = " <<
C[i][y] << endl;

         }
      }
}
```




```
> sh -c make -s
> ./main
Matriks A
Masukkan angka ke [0] [0] = 9
Masukkan angka ke [0] [1] = 4
Masukkan angka ke [1] [0] = 7
Masukkan angka ke [1] [1] = 5
Masukkan angka ke [2] [0] = 2
Masukkan angka ke [2] [1] = 1

Matriks B
Masukkan angka ke [0] [0] = 0
Masukkan angka ke [0] [1] = 6
Masukkan angka ke [1] [0] = 7
Masukkan angka ke [1] [1] = 3
Masukkan angka ke [2] [0] = 8
Masukkan angka ke [2] [1] = 4

Hasil penjumlahan matriks ordo 3x2 tersebut adalah:
C [0] [0] = 9
C [0] [1] = 10
C [1] [0] = 14
C [1] [1] = 8
C [2] [0] = 10
C [2] [1] = 5
>
```

Pseudocode
Deklarasi
Int: A [3][2], B [3][2], C [3][2]

Deskripsi
A [3][2]
B [3][2]
C [3][2]
For (i = 0; i < 3; i++)
For (y = 0; y < 2; y++)
Read (A[i][y])
Endfor

For (i = 0; i < 3; i++)
For (y = 0; y < 2; y++)
Read (B[i][y])
Jumlah -> A[i][y] + B[i][y]

Write (C[i][y] -> Jumlah)
Endfor
Endfor

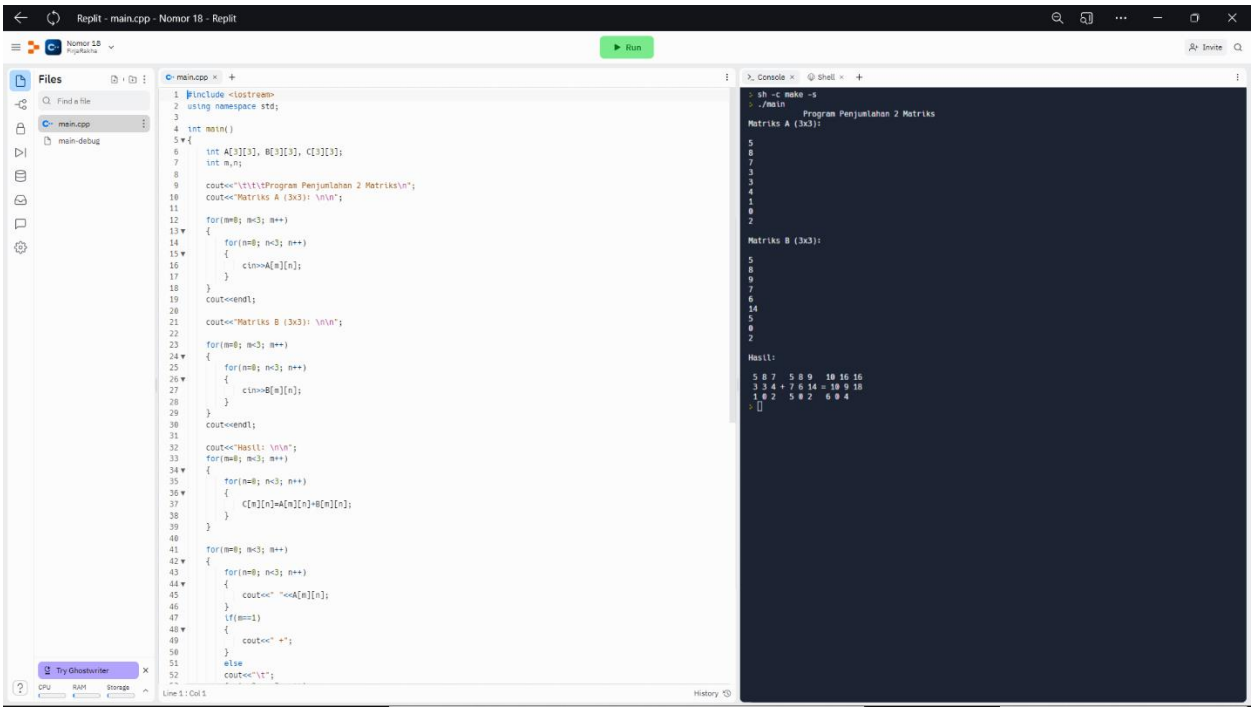
**Nomor 18**

```
#include <iostream>
using namespace std;
int main() {
int A [3][2], B [3][2], C [3][2];
    int angka;
    int jumlah;
    // Matriks A
    cout << "Matriks A"<< endl;
    for(int i = 0; i < 3; i++)
      {
        for (int y = 0; y < 2; y++)
```

```
        {
          cout << "Masukkan angka ke [" << i << "] [" << y
<< "] = ";
          cin >> A[i][y];
        }
       }

    // Matriks B
  cout << endl;
       cout << "Matriks B" <<endl;
     for (int i = 0; i < 3; i++)
       {
         for (int y = 0; y < 2; y++)
         {
   cout << "Masukkan angka ke [" << i << "] [" << y << "] =
";
   cin >> B[i][y];
   jumlah = A[i][y] + B[i][y];
   C[i][y] = jumlah;
    }
   }
   // Hasil
  cout << endl;
   cout << "Hasil penjumlahan matriks ordo 3x2 tersebut
adalah: "<< endl;
   for (int i = 0; i < 3; i++)
     {
       for (int y = 0; y < 2; y++)
         {
          cout << "C [" << i << "] [" << y << "] = " <<
C[i][y] << endl;

         }
      }
}
```




Pseudocode
Deklarasi
int: A [3][2], B [3][2], C [3][2]

Deskripsi
A [3][2]
B [3][2]
C [3][2]
for(int i = 0; i < 3; i++)
for(int y = 0; y < 2; y++)
Read (A[m][n])
Endfor
Endfor

for (int i = 0; i < 3; i++)
for (int y = 0; y < 2; y++)
Read (B[i][y])
Jumlah -> A[m][n] + (B[i][y])

```
Write (C[i][y]) -> jumlah
Endfor
Endfor
```