# UJIAN AKHIR SEMESTER

# PEMROGRAMAN DASAR

# INSTITUT TEKNOLOGI NASIONAL BANDUNG


NAMA : MUHAMMAD BINTANG FIRDAUS WILDAN

NRP : 15-2021-162


TANGGAL : 10 JANUARI 2023

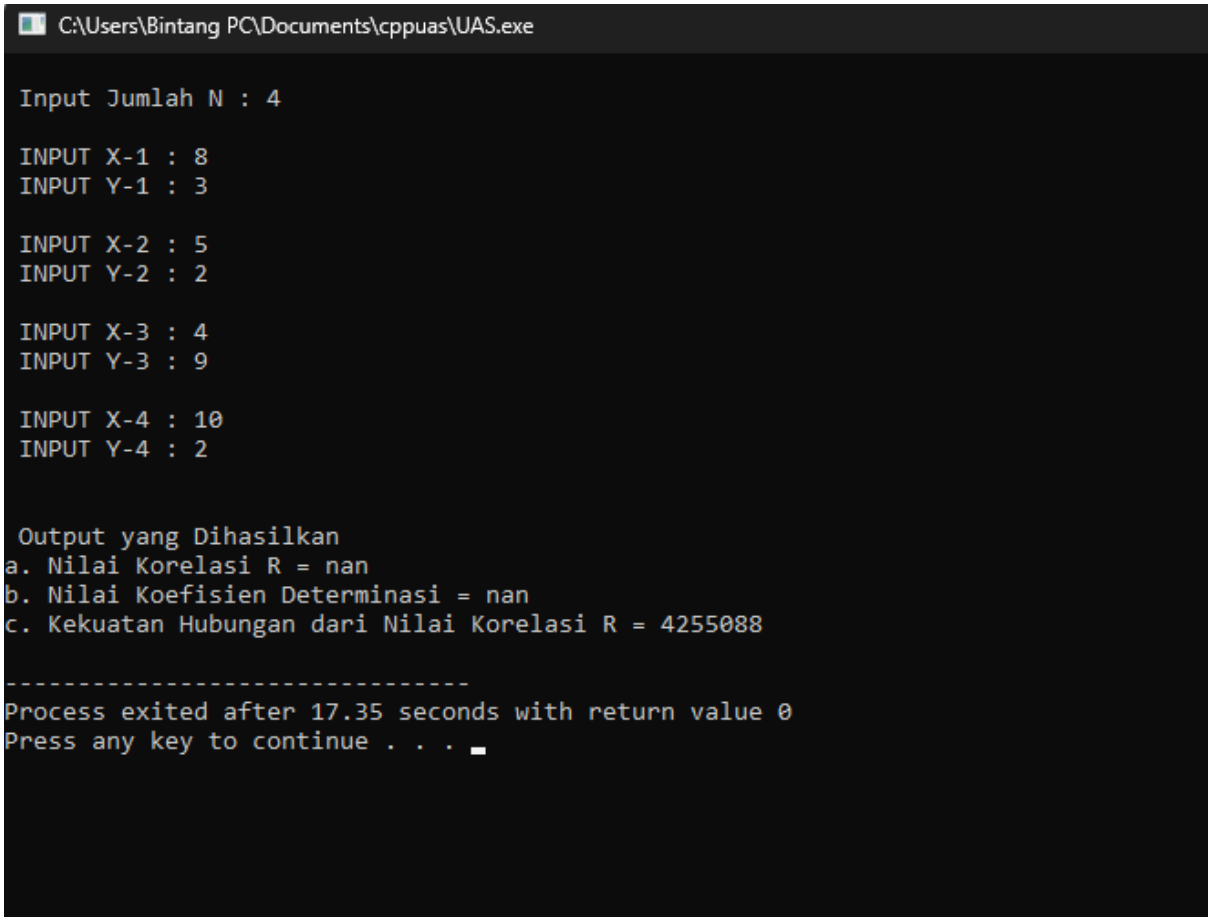
Source Code :

```
#include <iostream>
#include <conio.h>
#include <iomanip>
#include <math.h>

using namespace std;

int main()

{
float X[300];
float Y[300];
float data, totalX, totalY, totalXY, totalXkuadrat, totalYKuadrat,
kuadrattotalX;
int i, ulang, korelasi;
do

{
 totalX=0, totalY=0, totalXY=0, totalXkuadrat=0, totalYKuadrat=0;
 cout << endl;
 cout << " Input Jumlah N : " ; cin >> data ;
 cout << endl ;

 for (i=0 ; i<data ; i++)
 {
 cout << " INPUT X-" << i+1 << " : " ; cin >> X[i];
 cout << " INPUT Y-" << i+1 << " : " ; cin >> Y[i];
 cout << endl;
 }
```

```
cout << endl;

for (i=0 ; i<data ; i++)
totalXY=totalXY+(X[i]*Y[i]);

for (i=0 ; i<data ; i++)

{
totalX=totalX+X[i];
totalY=totalY+Y[i];
}

for (i=0 ; i<data ; i++)
totalXkuadrat=totalXkuadrat+(X[i]*X[i]);

for (i=0 ; i<data ; i++)
totalYKuadrat=totalYKuadrat+(Y[i]*Y[i]);

for (i=0 ; i<data ; i++)
kuadrattotalX=totalX*totalX;

float pkt1 = 2;
float nX = data*totalX;
float pangkatA = pow(nX,pkt1);
float akarA = sqrt((data*totalXkuadrat)-(pangkatA));
float pkt2 = 2;
float nY = data*totalY;
float pangkatB = pow(nY,pkt2);
float akarB = sqrt((data*totalYKuadrat)-(pangkatB));
float r =((data*totalXY)- (totalX*totalY)) / ( akarA + akarB );
float koefisiendeterminasi = (r*r) * (100/100);
```

```
if (r<0.09){
cout << "Hubungan korelasi diabaikan"; cin >> korelasi;
}
if (r<0.29){
cout << "Hubungan korelasi rendah"; cin >> korelasi;
}
if (r<0.49){
cout << "Hubungan korelasi moderat"; cin >> korelasi;
}
if (r<0.70){
cout << "Hubungan korelasi sedang"; cin >> korelasi;
}
if (r>0.70){
cout << "Hubungan korelasi sangat kuat"; cin >> korelasi;
}
cout << " Output yang Dihasilkan" << endl;
cout << "a. Nilai Korelasi R = " << r << endl;
cout << "b. Nilai Koefisien Determinasi = " << koefisiendeterminasi << endl;
cout << "c. Kekuatan Hubungan dari Nilai Korelasi R = " << korelasi << endl;


} while (ulang=='Y' || ulang=='y');

}
```

OutPut :


C:\Users\Bintang PC\Documents\cppuas\UAS.exe
Input Jumlah N : 4
INPUT X-1 : 8
INPUT Y-1 : 3
INPUT X-2 : 5
INPUT Y-2 : 2
INPUT X-3 : 4
INPUT Y-3 : 9
INPUT X-4 : 10
INPUT Y-4 : 2
Output yang Dihasilkan
a. Nilai Korelasi R = nan
b. Nilai Koefisien Determinasi = nan
c. Kekuatan Hubungan dari Nilai Korelasi R = 4255088
Process exited after 17.35 seconds with return value 0
Press any key to continue . . .