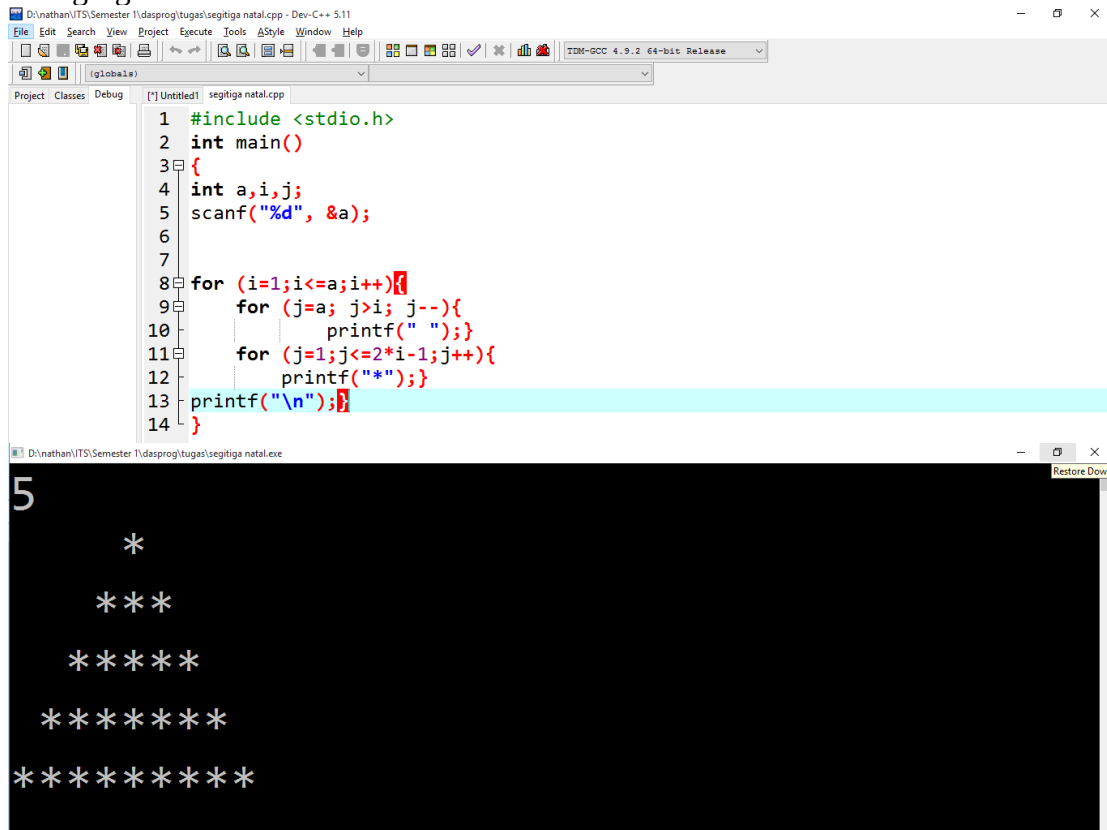


Nathanael Hutama H.
07211940000044

1. Segitiga 1:



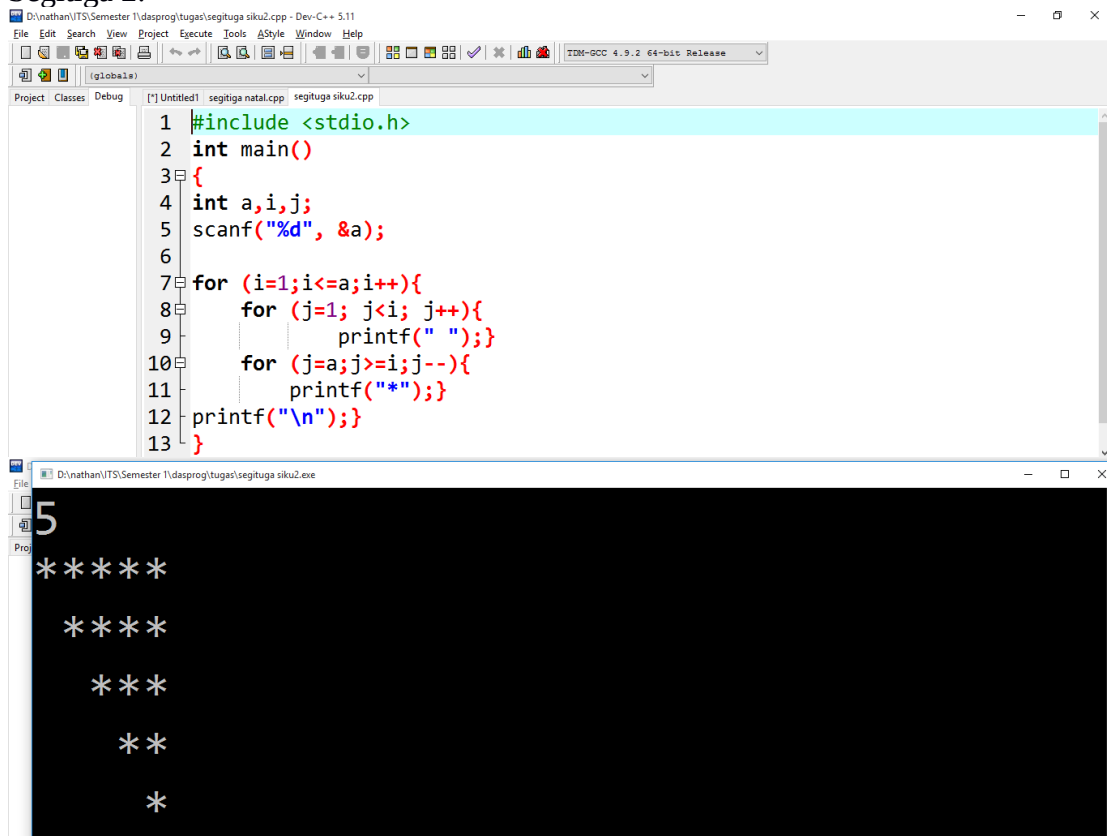
The screenshot shows a C++ IDE with the following code in `segitiga natal.cpp`:

```
1 #include <stdio.h>
2 int main()
3 {
4     int a,i,j;
5     scanf("%d", &a);
6
7
8     for (i=1;i<=a;i++){
9         for (j=a; j>i; j--){
10             printf(" ");
11         }
12         for (j=1;j<=2*i-1;j++){
13             printf("*");
14         }
15         printf("\n");
16     }
```

The output window shows the result for input 5:

```
5
  *
 ***
*****
*****
*****
```

Segitiga 2:



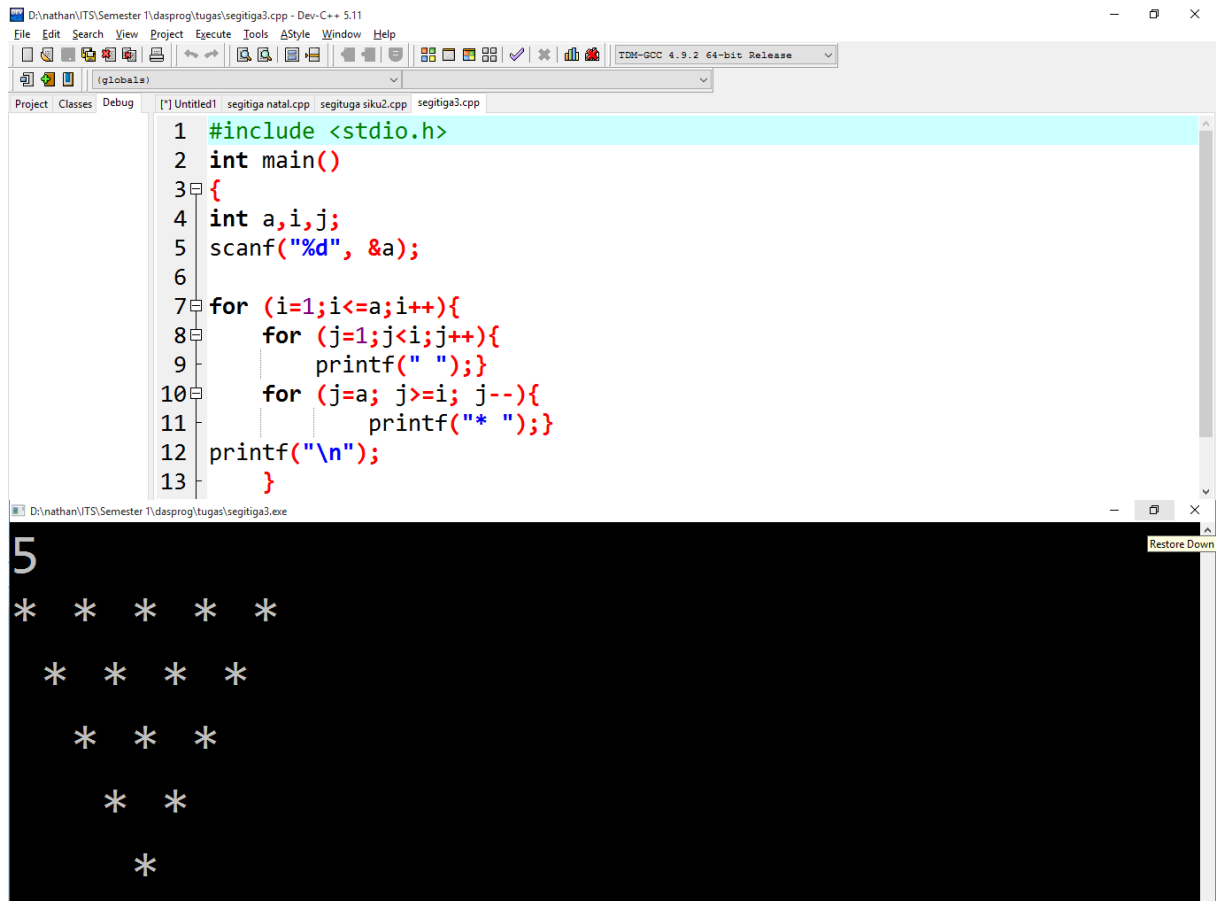
The screenshot shows a C++ IDE with the following code in `segitiga siku2.cpp`:

```
1 #include <stdio.h>
2 int main()
3 {
4     int a,i,j;
5     scanf("%d", &a);
6
7     for (i=1;i<=a;i++){
8         for (j=1; j<i; j++){
9             printf(" ");
10        }
11        for (j=a;j>=i;j--){
12            printf("*");
13        }
14        printf("\n");
15    }
```

The output window shows the result for input 5:

```
5
*****
****
***
**
*
```

Segitiga 3:



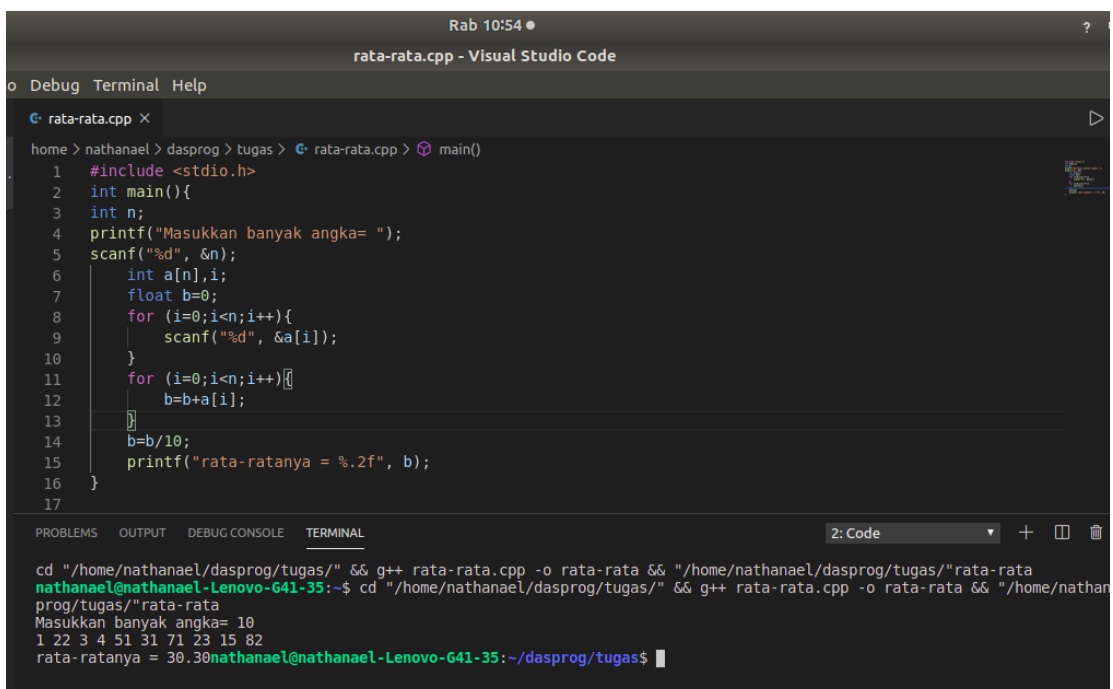
The screenshot shows the Dev-C++ IDE with a C++ program for printing a right-angled triangle of asterisks. The code is as follows:

```
1 #include <stdio.h>
2 int main()
3 {
4     int a,i,j;
5     scanf("%d", &a);
6
7     for (i=1;i<=a;i++){
8         for (j=1;j<i;j++){
9             printf(" ");
10        }
11        for (j=a; j>=i; j--){
12            printf("* ");
13        }
14        printf("\n");
15    }
```

The output of the program is a right-angled triangle of asterisks with 5 rows:

```
5
* * * * *
 * * * *
  * * *
   * *
    *
```

2. Rata-rata:



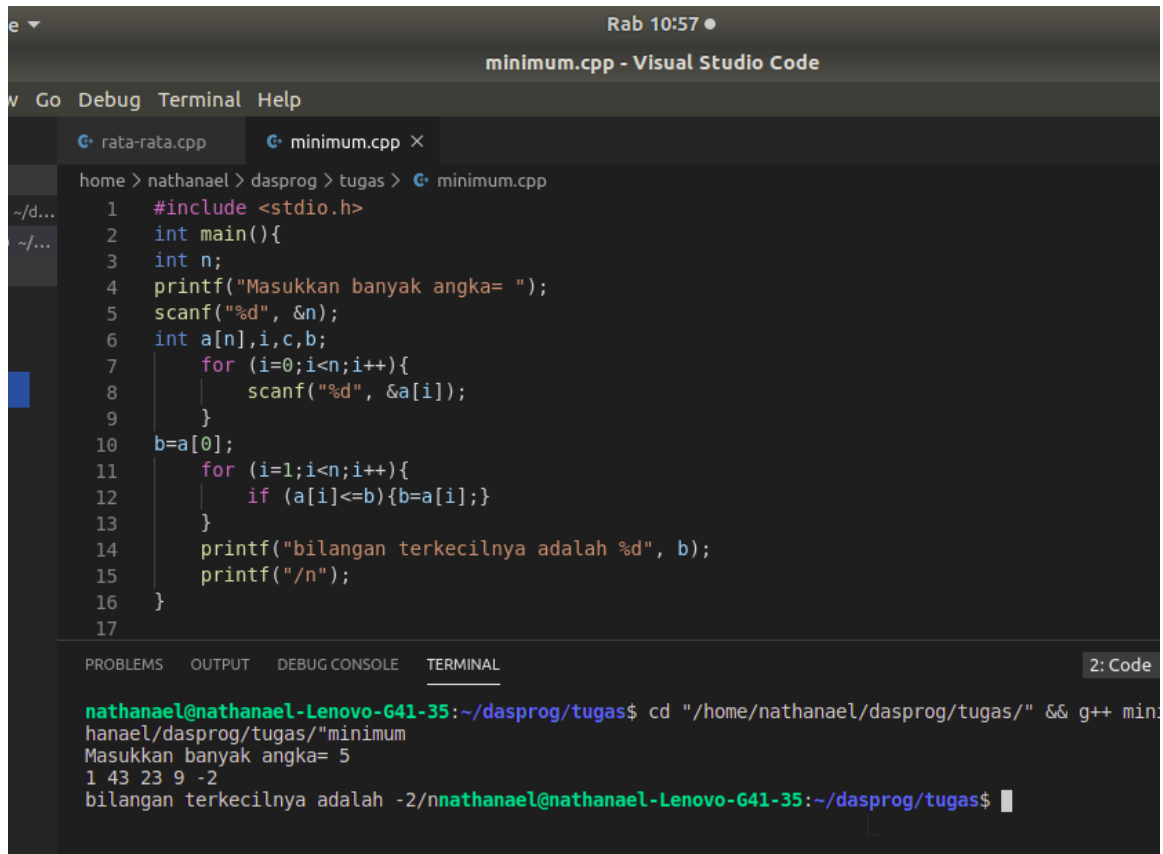
The screenshot shows the Visual Studio Code IDE with a C++ program for calculating the average of a set of numbers. The code is as follows:

```
1 #include <stdio.h>
2 int main(){
3     int n;
4     printf("Masukkan banyak angka= ");
5     scanf("%d", &n);
6     int a[n],i;
7     float b=0;
8     for (i=0;i<n;i++){
9         scanf("%d", &a[i]);
10    }
11    for (i=0;i<n;i++){
12        b=b+a[i];
13    }
14    b=b/10;
15    printf("rata-ratanya = %.2f", b);
16 }
```

The output of the program is as follows:

```
cd "/home/nathanael/dasprog/tugas/" && g++ rata-rata.cpp -o rata-rata && "/home/nathanael/dasprog/tugas/"rata-rata
nathanael@nathanael-Lenovo-641-35:~$ cd "/home/nathanael/dasprog/tugas/" && g++ rata-rata.cpp -o rata-rata && "/home/nathanael/dasprog/tugas/"rata-rata
Masukkan banyak angka= 10
1 22 3 4 51 31 71 23 15 82
rata-ratanya = 30.30nathanael@nathanael-Lenovo-641-35:~/dasprog/tugas$
```

Nilai Min :



The screenshot shows the Visual Studio Code editor with the file 'minimum.cpp' open. The code is a C++ program to find the minimum value in an array. The terminal shows the compilation and execution of the program.

```
minimum.cpp - Visual Studio Code

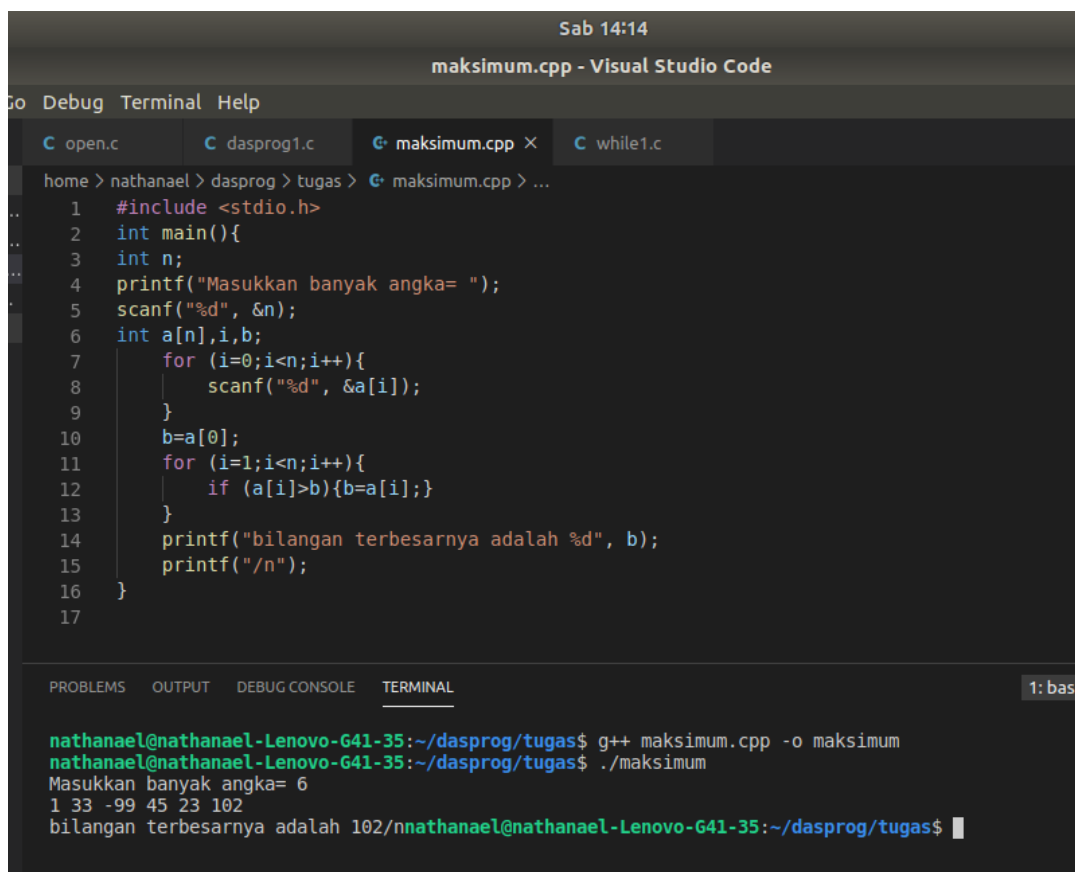
home > nathanael > dasprog > tugas > minimum.cpp

1  #include <stdio.h>
2  int main(){
3  int n;
4  printf("Masukkan banyak angka= ");
5  scanf("%d", &n);
6  int a[n],i,c,b;
7      for (i=0;i<n;i++){
8          scanf("%d", &a[i]);
9      }
10 b=a[0];
11 for (i=1;i<n;i++){
12     if (a[i]<=b){b=a[i];}
13 }
14 printf("bilangan terkecilnya adalah %d", b);
15 printf("/n");
16 }
17
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL 2: Code

```
nathanael@nathanael-Lenovo-G41-35:~/dasprog/tugas$ cd "/home/nathanael/dasprog/tugas/" && g++ minimum.cpp -o minimum
nathanael@nathanael-Lenovo-G41-35:~/dasprog/tugas$ ./minimum
Masukkan banyak angka= 5
1 43 23 9 -2
bilangan terkecilnya adalah -2/nathanael@nathanael-Lenovo-G41-35:~/dasprog/tugas$
```

Nilai Max :



The screenshot shows the Visual Studio Code editor with the file 'maksimum.cpp' open. The code is a C++ program to find the maximum value in an array. The terminal shows the compilation and execution of the program.

```
maksimum.cpp - Visual Studio Code


home > nathanael > dasprog > tugas > maksimum.cpp > ...

1  #include <stdio.h>
2  int main(){
3  int n;
4  printf("Masukkan banyak angka= ");
5  scanf("%d", &n);
6  int a[n],i,b;
7      for (i=0;i<n;i++){
8          scanf("%d", &a[i]);
9      }
10 b=a[0];
11 for (i=1;i<n;i++){
12     if (a[i]>b){b=a[i];}
13 }
14 printf("bilangan terbesarnya adalah %d", b);
15 printf("/n");
16 }
17
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL 1: bas

```
nathanael@nathanael-Lenovo-G41-35:~/dasprog/tugas$ g++ maksimum.cpp -o maksimum
nathanael@nathanael-Lenovo-G41-35:~/dasprog/tugas$ ./maksimum
Masukkan banyak angka= 6
1 33 -99 45 23 102
bilangan terbesarnya adalah 102/nathanael@nathanael-Lenovo-G41-35:~/dasprog/tugas$
```

3. Pengurangan Matriks :

```
home > nathanael > dasprog > array >  penguranganmatriks.cpp >  main()
1  //pengurangan matriks
2  #include <stdio.h>
3  int main(){
4  int baris, kolom;
5      printf("Masukkan jumlah baris = "); scanf("%d", &baris);
6      printf("Masukkan jumlah kolom = "); scanf("%d", &kolom);
7  int a[baris][kolom], b[baris][kolom], i, j, hasil;
8      printf("Masukkan anggota matriks a=\n");
9      for (i=0; i<baris; i++){
10         for (j=0; j<kolom; j++){
11             scanf("%d", &a[i][j]);
12         }
13     }
14
15     printf("Masukkan anggota matriks b=\n");
16     for (i=0; i<baris; i++){
17         for (j=0; j<kolom; j++){
18             scanf("%d", &b[i][j]);
19         }
20     }
21
22     //untuk ngeprint hasil pengurangan
23     printf("hasil pengurangannya adalah =\n");
24     for (i=0; i<baris; i++){
25         for (j=0; j<kolom; j++){
26             hasil=a[i][j]-b[i][j];
27             printf("%d ", hasil);
28             hasil=0;
29         }
30         printf("\n");
31     }
32 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
nathanael@nathanael-Lenovo-G41-35:~/dasprog/array$ g++ penguranganmatriks.cpp
nathanael@nathanael-Lenovo-G41-35:~/dasprog/array$ ./penguranganmatriks
Masukkan jumlah baris = 3
Masukkan jumlah kolom = 3
Masukkan anggota matriks a=
1 2 3 4 5 6 7 8 9
Masukkan anggota matriks b=
9 8 7 6 5 4 3 2 1
hasil pengurangannya adalah =
-8 -6 -4
-2 0 2
4 6 8
nathanael@nathanael-Lenovo-G41-35:~/dasprog/array$ █
```

Penjumlahan Matriks :

```
home > nathanael > dasprog > array >  penjumlahanmatriks.cpp >  main()
1  //penjumlahan matriks
2  #include <stdio.h>
3  int main(){
4  int baris, kolom;
5      printf("Masukkan jumlah baris = "); scanf("%d", &baris);
6      printf("Masukkan jumlah kolom = "); scanf("%d", &kolom);
7  int a[baris][kolom], b[baris][kolom], i, j, hasil;
8      printf("Masukkan anggota matriks a=\n");
9      for (i=0; i<baris; i++){
10         for (j=0; j<kolom; j++){
11             scanf("%d", &a[i][j]);
12         }
13     }
14
15     printf("Masukkan anggota matriks b=\n");
16     for (i=0; i<baris; i++){
17         for (j=0; j<kolom; j++){
18             scanf("%d", &b[i][j]);
19         }
20     }
21
22     //untuk ngeprint hasil penjumlahan
23     printf("hasil penjumlahannya adalah =\n");
24     for (i=0; i<baris; i++){
25         for (j=0; j<kolom; j++){
26             hasil=a[i][j]+b[i][j];
27             printf("%d ", hasil);
28             hasil=0;
29         }
30         printf("\n");
31     }
32 }
```

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  1: bash
nathanael@nathanael-Lenovo-G41-35:~/dasprog/array$ g++ penjumlahanmatriks.cpp -o penjumlahanmatriks
nathanael@nathanael-Lenovo-G41-35:~/dasprog/array$ ./penjumlahanmatriks
Masukkan jumlah baris = 3
Masukkan jumlah kolom = 3
Masukkan anggota matriks a=
1 2 3 4 5 6 7 8 9
Masukkan anggota matriks b=
1 2 3 4 5 6 7 8 9
hasil penjumlahannya adalah =
2 4 6
8 10 12
14 16 18
nathanael@nathanael-Lenovo-G41-35:~/dasprog/array$
```

Ln 1, Col 1 Tab Size:

4. Reversed inputted value :

```
1  #include <stdio.h>
2  int c=0;
3  int fungsi (int a){
4  int b;
5  if (a<0){a=a*-1;
6      printf("Setelah dibalik = -");}
7  else {printf("Setelah dibalik = ");}
8
9  while (a>0){
10     b=a%10;
11     c=c*10+b;
12     a=a/10;}
13 return c;
14 }
15
16 int main(){
17 int a;
18 printf("Masukkan angka = ");
19 scanf("%d",&a);
20
21 fungsi(a);
22 printf("%d",c);
23 printf("\n");
24 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
nathanael@nathanael-Lenovo-G41-35:~/dasprog/tugas$ gcc printkebalik.c -o printkebalik
nathanael@nathanael-Lenovo-G41-35:~/dasprog/tugas$ ./printkebalik
Masukkan angka = -23451
Setelah dibalik = -15432
```

5. Program membaca file :

Sab 13:33

open.c - Visual Studio Code

home > nathanael > dasprog > tugas > open.c > main()

```
1  #include <stdio.h>
2  int main(){
3
4  int data[4],i;
5  FILE *fp;
6
7  //char nama[]="test.txt";
8
9  fp=fopen("test.txt","r+");
10
11 for (i=0;i<4;i++){
12     fscanf(fp,"%d", &data[i]);}
13
14 fclose(fp);
15 for (i=0;i<4;i++){
16     printf("%d ", data[i]);
17 }
18 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
1: bash
nathanael@nathanael-Lenovo-G41-35:~$ cd dasprog/tugas
nathanael@nathanael-Lenovo-G41-35:~/dasprog/tugas$ gcc open.c -o open
nathanael@nathanael-Lenovo-G41-35:~/dasprog/tugas$ ./open
nathanael@nathanael-Lenovo-G41-35:~/dasprog/tugas$ ./open
10 20 30 40 nathanael@nathanael-Lenovo-G41-35:~/dasprog/tugas$
```

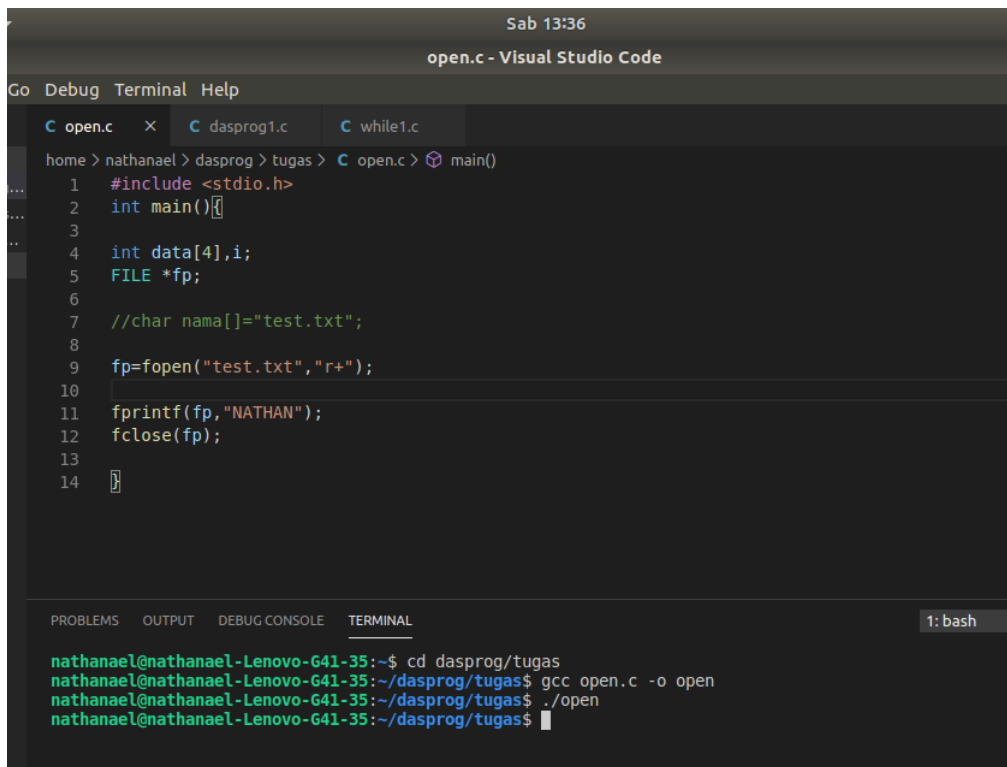
Sab 13:33

test.txt
~/dasprog/tugas

Open Save

```
10 20 30 40
1  #in
2  int
3
4  int
5  FIL
6
```

Program menulis data ke file :



The screenshot shows the Visual Studio Code editor with a C program named `open.c` open. The code is as follows:

```
1 #include <stdio.h>
2 int main(){
3
4     int data[4],i;
5     FILE *fp;
6
7     //char nama[]="test.txt";
8
9     fp=fopen("test.txt","r+");
10
11     fprintf(fp,"NATHAN");
12     fclose(fp);
13
14 }
```

Below the editor, the terminal window shows the following commands and output:

```
nathanael@nathanael-Lenovo-G41-35:~$ cd dasprog/tugas
nathanael@nathanael-Lenovo-G41-35:~/dasprog/tugas$ gcc open.c -o open
nathanael@nathanael-Lenovo-G41-35:~/dasprog/tugas$ ./open
nathanael@nathanael-Lenovo-G41-35:~/dasprog/tugas$
```

