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Tugas 1

```
package Tugas;


public class Tugas {


   /**
    * @param args the command line arguments
    */
   public static void main(String[] args) {
      int[]arr;
      arr=new int[5];//alokasi memori 5
      arr[0]=10;//elemen pertama array
      arr[1]=20;//elemen kedua array
      arr[2]=30;
      arr[3]=40;
      arr[4]=50;
      //menampilkan isi array
      for(int i=0; i<arr.length;i++){
      System.out.println("Elemen di setiap index"+i+" : "+arr[i]);}
   }
}
```

Tugas 2

package Tugas;

```
public class Tugas1 {

   /**
    * @param args the command line arguments
    */
   public static void main(String[] args) {
      // TODO code application logic here
      int arr[][] = {{2,7,9},{3,6,1},{7,4,2}};//deklarasi 2 dimensi array
      for(int i=0;i<3;i++)
      {
         for(int j=0;j<3;j++)
         {
            System.out.println(arr[i][j]+" ");
         }
      }
   }

}
```

Tugas 3

```
package Tugas;

public class Tugas2 {
   public static void main(String[] args) {
      // TODO code application logic here
      int x[]= {1,2,3};
      int xx[][] = {{10,20,30},{40,50}};
      int y[] = x.clone();
      int yy[][] = xx.clone();

      System.out.println(x==y);//perbedaan array
```

```
    System.out.println(xx==yy);

    for(int i=0;i<y.length;i++) {
       System.out.print(y[i]+" ");
    }
    System.out.println();

    for(int i=0;i<yy.length;i++) {
       for(int j=0;j<yy[i].length;j++) {
          System.out.print(yy[i][j]+" ");}
       System.out.println();}
       }
    }
```

Tugas 4

```
package Tugas;

public class Tugas3 {
   public static void geserkekiri(int arr[], int d)
   {
    for(int i = 0; i<d;i++)
       geserkekirisatuan(arr);
   }
   public static void geserkekirisatuan(int arr[])
   {
      int i, temp;
      int n = arr.length;
      temp = arr[0];
      for (i=0;i<(n-1);i++)
         arr[i]=arr[i+1];
      arr[n-1]=temp;
   }
```

```
   public static void printArray(int arr[])
   {
      for(int i = 0;i<arr.length;i++)
         System.out.print(arr[i]+" ");
   }
   public static void main(String[]args){
      //TODO code application logic here

      int arr[]={1,2,3,4,5,6,7};
      geserkekiri(arr,2);
      printArray(arr);
   }
   //n array size,d jumlah pergeseran

}
```

Tugas 5

```
package Tugas;
//Latihan array untuk pergeseran value elemen
//methode rotate one by one A Juggling Algorithm
public class Tugas4 {
//d size array, n jumlah yang di geser
public static void geserkekiri(int arr[], int d)
{
int n=arr.length;
d = d % n;
int i, j, k, temp;
int g_c_d = gcd(d, n);
for (i = 0; i < g_c_d; i++) {
/* move i-th values of blocks */
temp = arr[i];
j = i;
```

```
while (true) {
k = j + d;
if (k >= n)
k = k - n;
if (k == i)
break;
arr[j] = arr[k];
j = k;
}
arr[j] = temp;
}
}
public static void geserkekirisatuan(int arr[])
{

int i, temp;
int n=arr.length;
temp = arr[0];
for (i = 0; i < n - 1; i++)
arr[i] = arr[i + 1];
arr[n-1] = temp;
}

public static void printArray(int arr[])
{
for (int i = 0; i < arr.length; i++)
System.out.print(arr[i] + " ");
}

public static int gcd(int d, int n)
{
```

```
if (n == 0)
return d;
else
return gcd(n, d % n);
}

public static void main(String[] args) {
// TODO code application logic here
int arr[] = { 1, 2, 3, 4, 5, 6, 7 };
geserkekiri(arr, 2);
printArray(arr);
}
//n array size, d jumlah pergeseran


}
```

Tugas 6

```
package Tugas;
//Latihan array untuk pergeseran value elemen
//methode rotate one by one The Reversal Algorithm
public class Tugas5 {
public static void geserkekiri(int arr[], int d)
{
if (d == 0)
return;
int n = arr.length;
d = d % n;
memutar(arr, 0, d - 1);
memutar(arr, d, n - 1);
memutar(arr, 0, n - 1);
}
```

```
public static void memutar(int arr[], int start, int end)
{
int temp;
while (start < end) {
temp = arr[start];
arr[start] = arr[end];
arr[end] = temp;
start++;
end--;
}
}

public static void printArray(int arr[])
{
for (int i = 0; i < arr.length; i++)
System.out.print(arr[i] + " ");
}

public static void main(String[] args) {
// TODO code application logic here
int arr[] = { 1, 2, 3, 4, 5, 6, 7 };
geserkekiri(arr, 2);
printArray(arr);
}
//n array size, d jumlah pergeseran


}
```

Tugas 7

```
package Tugas;
import java.util.*;
```

```
//Latihan array untuk pergeseran value elemen
//methode rotate one by one Block swap algorithm
public class Tugas6 {
public static void geserkekiri(int arr[], int d)
{
memutar(arr,0, d, arr.length);
}
public static void memutar(int arr[], int i,int d, int n)
{

if(d == 0 || d == n)
return;

/*If number of elements to be rotated
is exactly half of array size */
if(n - d == d)
{
swap(arr, i, n - d + i, d);
return;
}

/* If A is shorter*/
if(d < n - d)
{
swap(arr, i, n - d + i, d);
memutar(arr, i, d, n - d);
}
else /* If B is shorter*/
{
swap(arr, i, d, n - d);
memutar(arr, n - d + i, 2 * d - n, d); /*This is tricky*/
```

```
}
}

public static void printArray(int arr[])
{
for (int i = 0; i < arr.length; i++)
System.out.print(arr[i] + " ");
}

public static void swap(int arr[], int fi,
int si, int d)
{
int i, temp;
for(i = 0; i < d; i++)
{
temp = arr[fi + i];
arr[fi + i] = arr[si + i];
arr[si + i] = temp;
}
}

public static void main(String[] args) {
// TODO code application logic here
int arr[] = { 1, 2, 3, 4, 5, 6, 7 };
geserkekiri(arr,2);
printArray(arr);
}
//n array size, d jumlah pergeseran


}
```

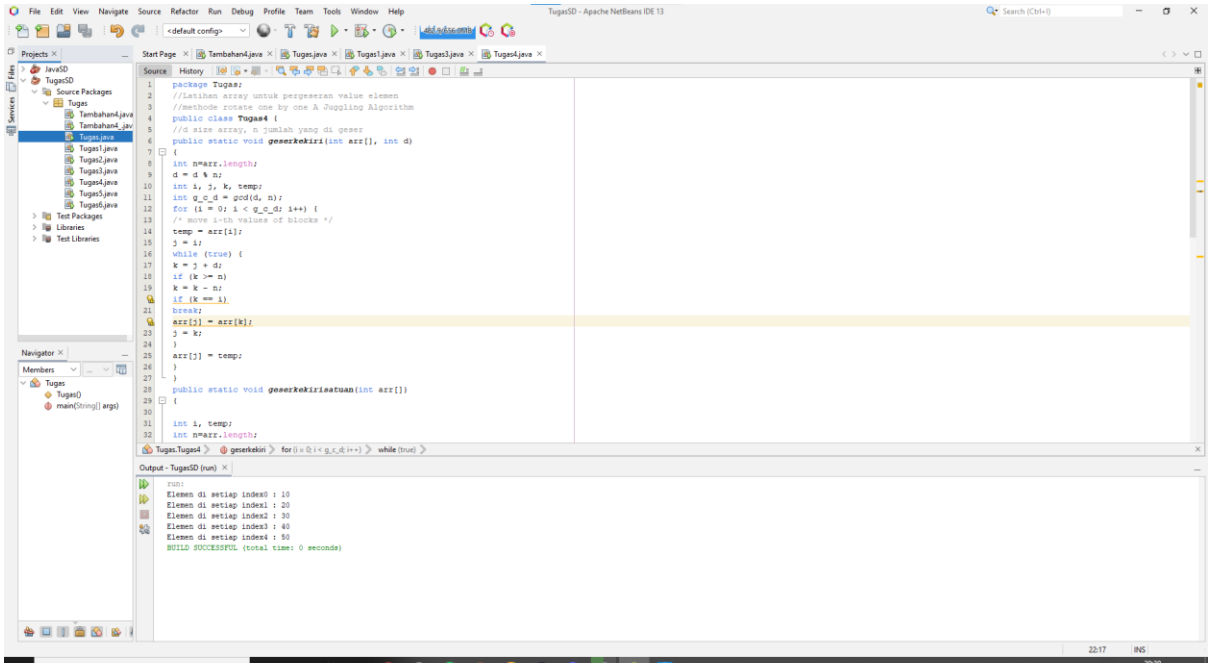
Tugas Tambahan 4

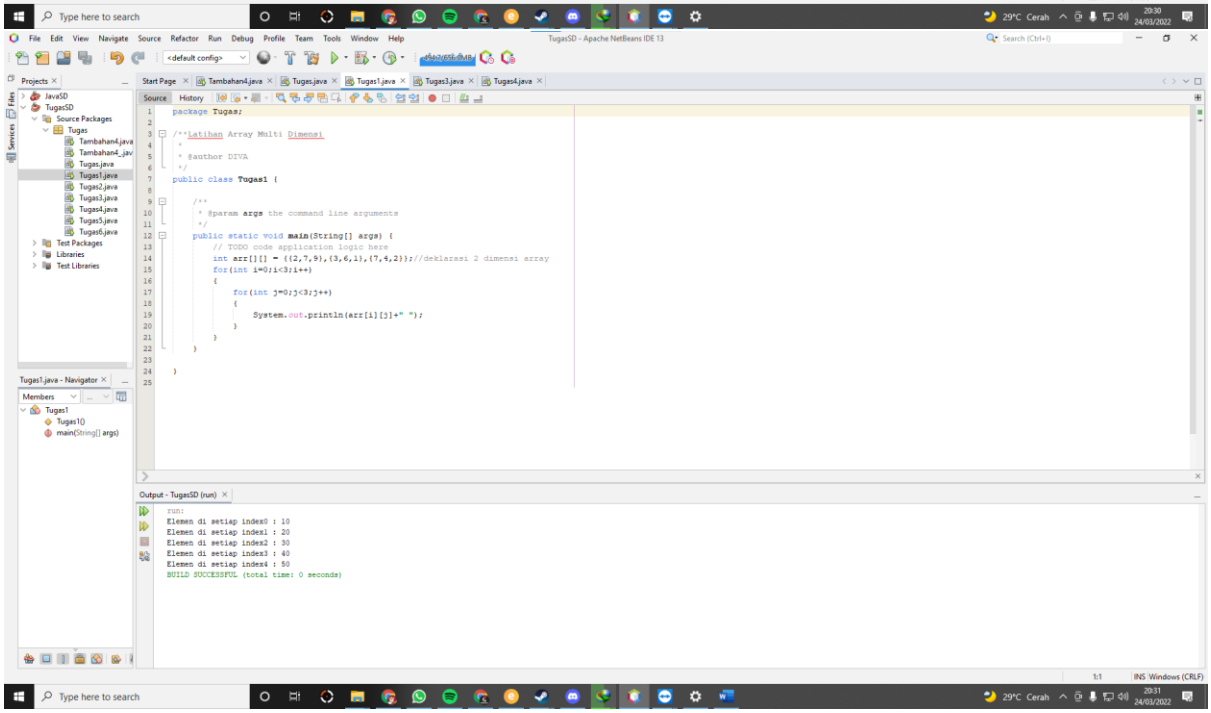
```
package Tugas;


public class Tambahan4 {


   public static void main(String[] args) {
      // TODO code application logic here
      int arr[] = { 1, 2, 3, 4, 5, 6, 7 };
      int temp;
      //pergeseran berapa banyak
      for (int j = 0; j < 2; j++)
      {
      //pergeseran 1 array
      temp=arr[0];
      for (int i = 0; i < (arr.length - 1); i++)
         arr[i] = arr[i + 1];
      arr[arr.length-1] = temp;
      System.out.println();
      for (int k = 0; k < arr.length; k++) {
         System.out.print(arr[k]+" ");
      }


      }




   }


}
```

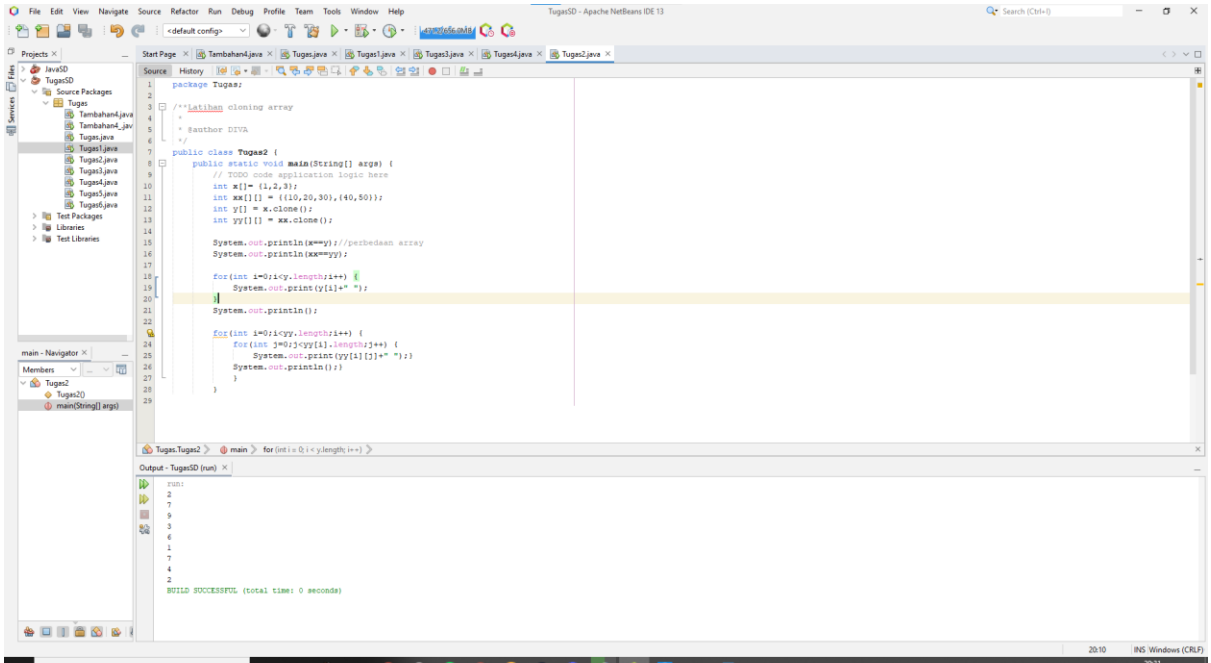
Tugas tambahan 4_

```
package Tugas;

public class Tambahan4_ {

   public static void main(String[] args) {
      // TODO code application logic here
      int arr[] = { 1, 2, 3, 4, 5, 6, 7 };
      int d=2;
      int temp[];
      temp=new int[d];

      //pergeseran berapa banyak
      for (int j = 0; j < 2; j++)
      {
      temp[j]=arr[j];
      }

      for (int i = 0; i < (arr.length-d); i++)
      arr[i] = arr[i +d];

       for (int j = 0; j < 2; j++)
      {
      arr[j+arr.length-d]=temp[j];
      }
      System.out.println();



      for (int k = 0; k < arr.length; k++) {
         System.out.print(arr[k]+" ");
      }
```

```
    }

}
```

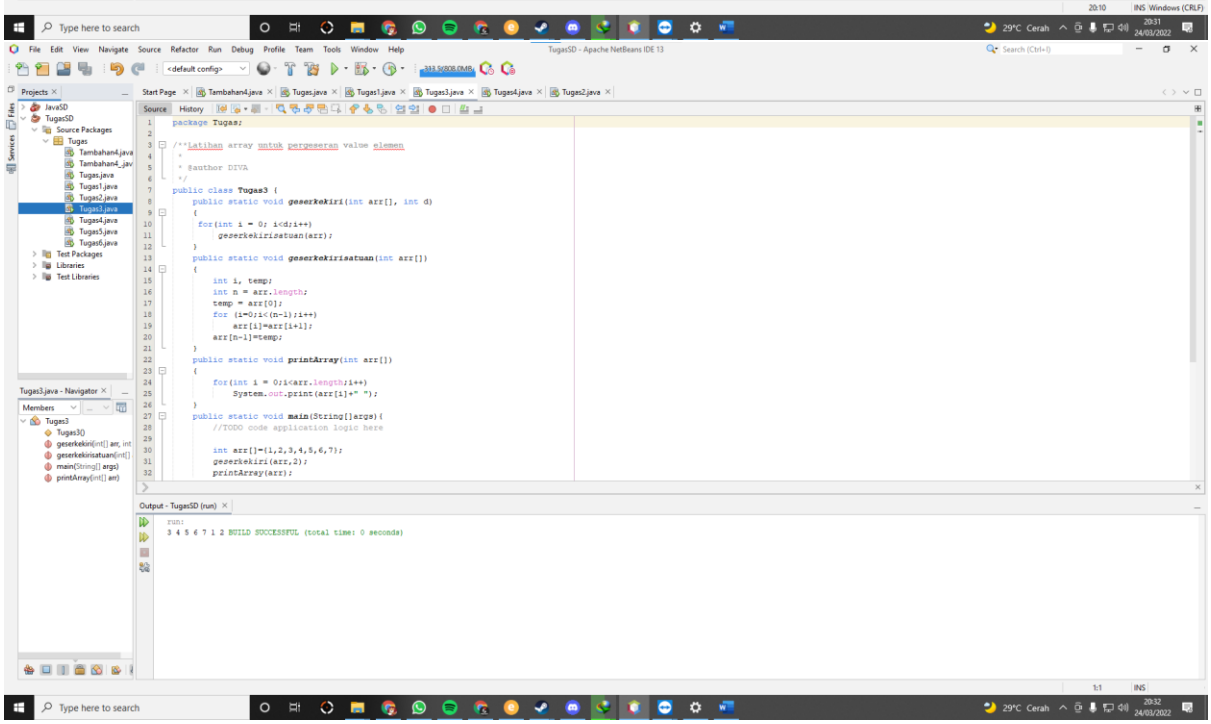

TugasSD - Apache NetBeans IDE 13
Tugas4.java
package Tugas;
//Latihan array untuk pergeseran value elemen
//methode rotate one by one A Juggling Algorithm
public class Tugas4 {
//d size array, n jumlah yang di geser
public static void geserkekiri(int arr[], int d)
{
int n=arr.length;
d = d % n;
int i, j, k, temp;
int g_c_d = gcd(d, n);
for (i = 0; i < g_c_d; i++) {
/* move i-th values of blocks */
temp = arr[i];
j = i;
while (true) {
k = j + d;
if (k >= n)
k = k - n;
if (k == i)
break;
arr[j] = arr[k];
j = k;
}
arr[j] = temp;
}
}
public static void geserkekirisatuan(int arr[])
{
int i, temp;
int n=arr.length;
Output - TugasSD (run)
run:
Elemen di setiap index0 : 10
Elemen di setiap index1 : 20
Elemen di setiap index2 : 30
Elemen di setiap index3 : 40
Elemen di setiap index4 : 50
BUILD SUCCESSFUL (total time: 0 seconds)


TugasSD - Apache NetBeans IDE 13
Tugas1.java
package Tugas;
/**Latihan Array Multi Dimensi
*
* @author DIVA
*/
public class Tugas1 {
/**
* @param args the command line arguments
*/
public static void main(String[] args) {
// TODO code application logic here
int arr[][] = {{2,7,9},{3,6,1},{7,4,2}};//deklarasi 2 dimensi array
for(int i=0;i<3;i++)
{
for(int j=0;j<3;j++)
{
System.out.println(arr[i][j]+" ");
}
}
}
}
Output - TugasSD (run)
run:
Elemen di setiap index0 : 10
Elemen di setiap index1 : 20
Elemen di setiap index2 : 30
Elemen di setiap index3 : 40
Elemen di setiap index4 : 50
BUILD SUCCESSFUL (total time: 0 seconds)



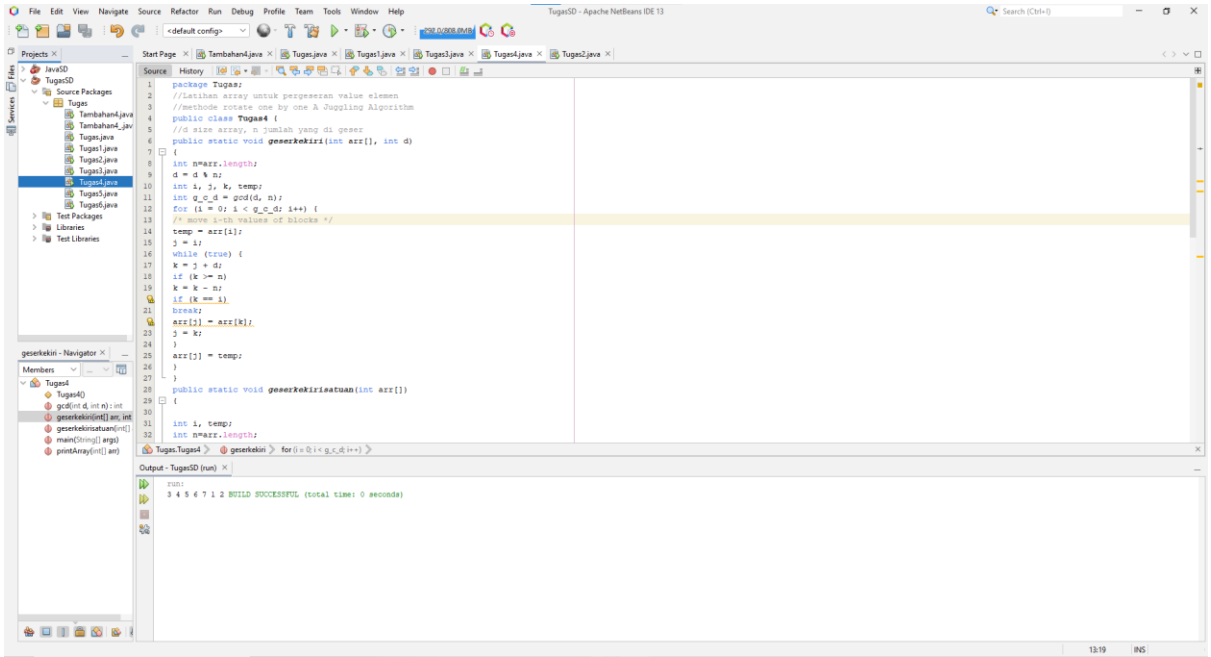
```
package Tugas;

/**Latihan cloning array
 *
 * @author DIVA
 */
public class Tugas2 {
    public static void main(String[] args) {
        // TODO code application logic here
        int x[]= {1,2,3};
        int xx[][] = {{10,20,30},{40,50}};
        int y[] = x.clone();
        int yy[][] = xx.clone();

        System.out.println(x==y);//perbedaan array
        System.out.println(xx==yy);

        for(int i=0;i<y.length;i++) {
            System.out.print(y[i]+" ");
        }
        System.out.println();

        for(int i=0;i<yy.length;i++) {
            for(int j=0;j<yy[i].length;j++) {
                System.out.print(yy[i][j]+" ");}
            System.out.println();}
            }
    }
```

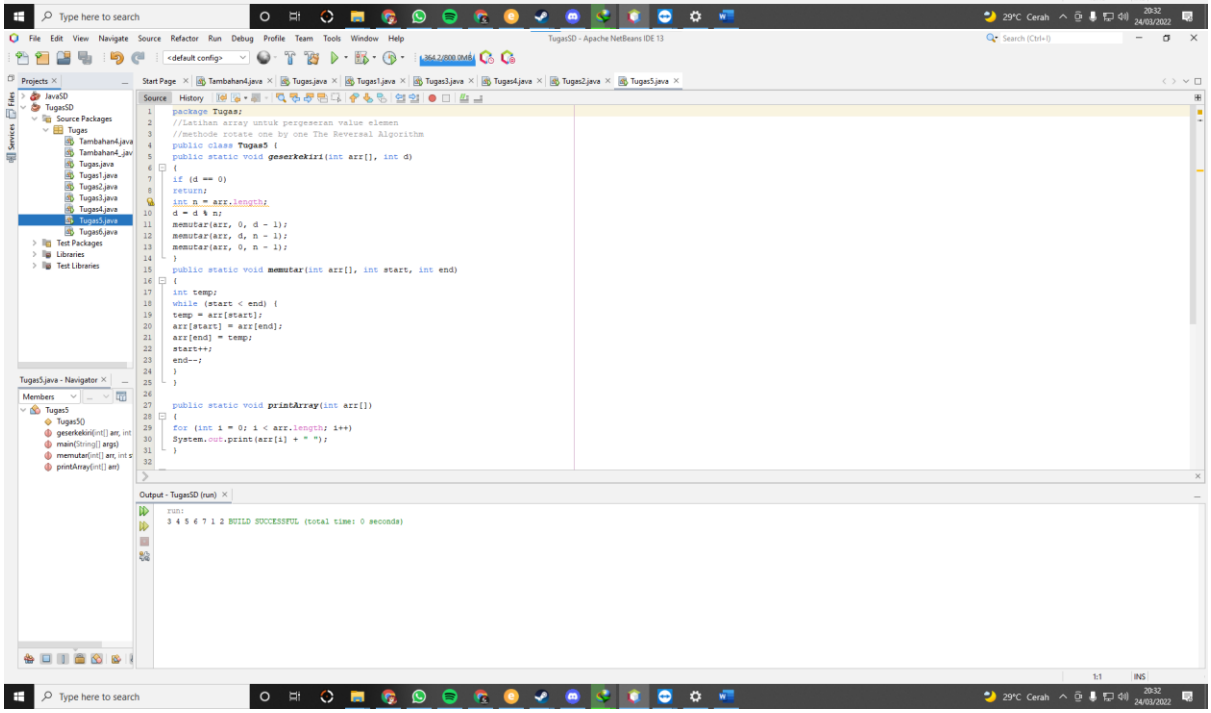
```
run:
2
7
9
3
6
1
7
4
2
BUILD SUCCESSFUL (total time: 0 seconds)
```

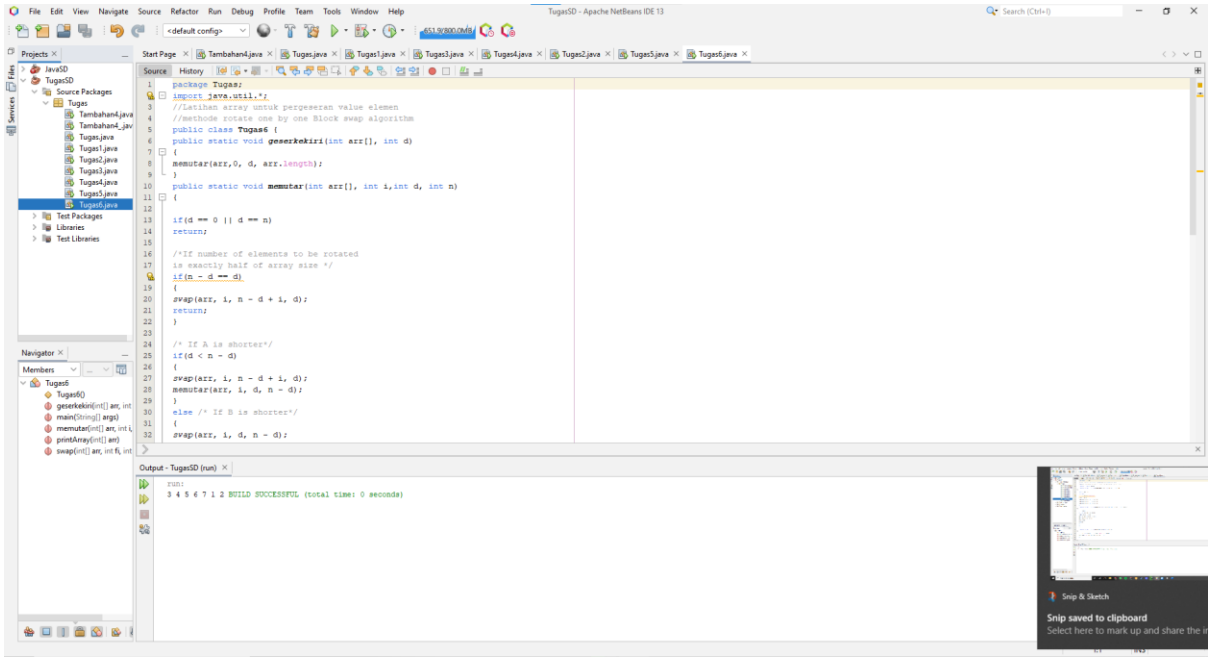


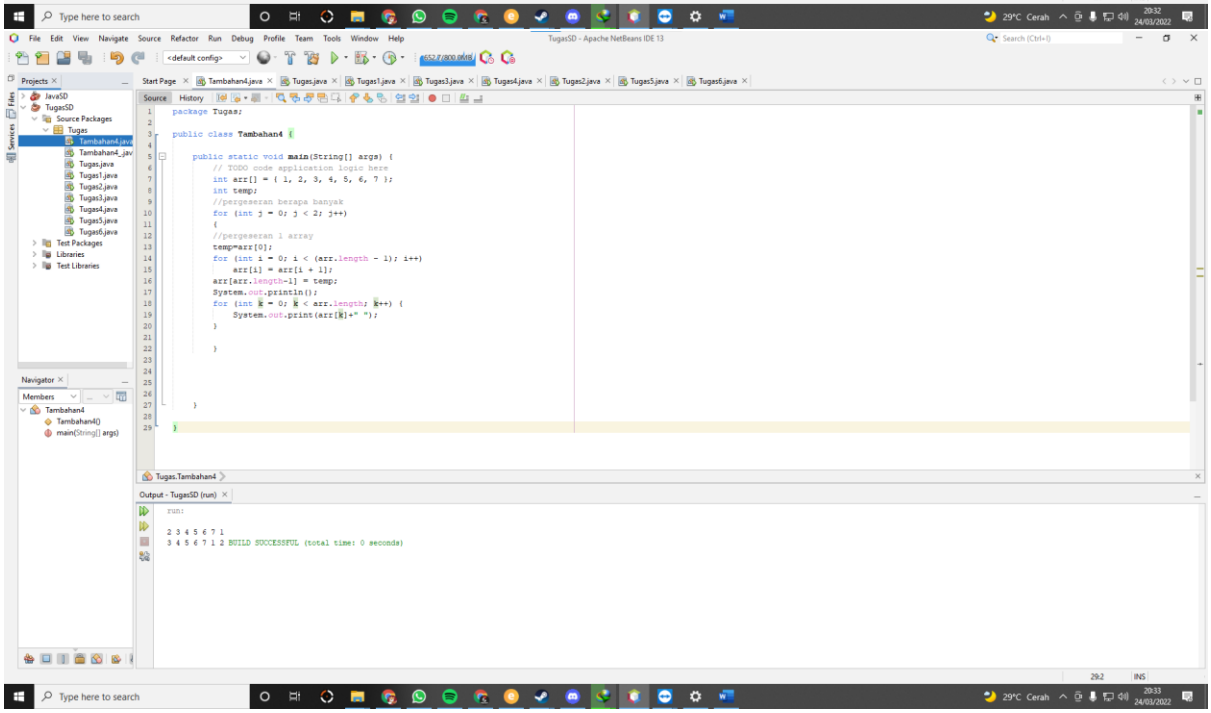
```
package Tugas;

/**Latihan array untuk pergeseran value elemen
 *
 * @author DIVA
 */
public class Tugas3 {
    public static void geserkekiri(int arr[], int d)
    {
     for(int i = 0; i<d;i++)
         geserkekirisatuan(arr);
    }
    public static void geserkekirisatuan(int arr[])
    {
        int i, temp;
        int n = arr.length;
        temp = arr[0];
        for (i=0;i<(n-1);i++)
            arr[i]=arr[i+1];
        arr[n-1]=temp;
    }
    public static void printArray(int arr[])
    {
        for(int i = 0;i<arr.length;i++)
            System.out.print(arr[i]+" ");
    }
    public static void main(String[]args){
        //TODO code application logic here

        int arr[]={1,2,3,4,5,6,7};
        geserkekiri(arr,2);
        printArray(arr);
```

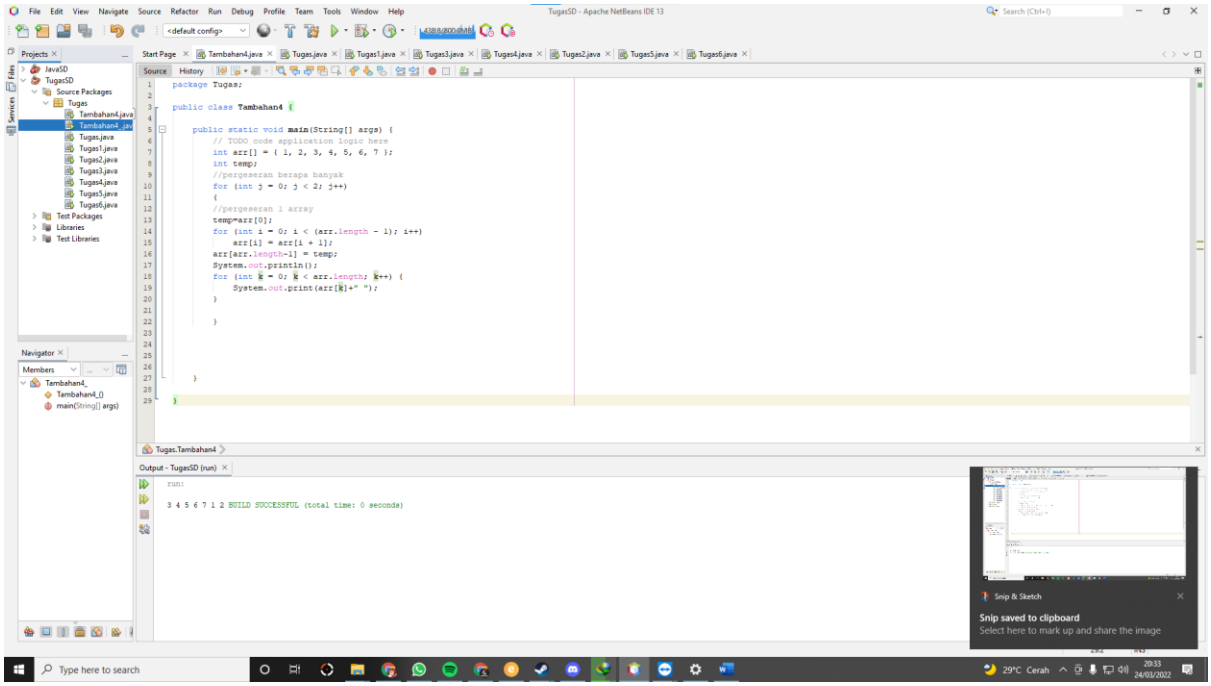
```
run:
3 4 5 6 7 1 2 BUILD SUCCESSFUL (total time: 0 seconds)
```


File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
TugasSD - Apache NetBeans IDE 13
Start Page | Tambahan4.java | Tugas.java | Tugas1.java | Tugas3.java | Tugas4.java | Tugas2.java
Source History
package Tugas;
//Latihan array untuk pergeseran value elemen
//methode rotate one by one A Juggling Algorithm
public class Tugas4 {
//d size array, n jumlah yang di geser
public static void geserkekiri(int arr[], int d)
{
int n=arr.length;
d = d % n;
int i, j, k, temp;
int g_c_d = gcd(d, n);
for (i = 0; i < g_c_d; i++) {
/* move i-th values of blocks */
temp = arr[i];
j = i;
while (true) {
k = j + d;
if (k >= n)
k = k - n;
if (k == i)
break;
arr[j] = arr[k];
j = k;
}
arr[j] = temp;
}
}
public static void geserkekirisatuan(int arr[])
{
int i, temp;
int n=arr.length;
Output - TugasSD (run)
run:
3 4 5 6 7 1 2 BUILD SUCCESSFUL (total time: 0 seconds)
Type here to search
29°C Cerah
20:32
24/03/2022


File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
TugasSD - Apache NetBeans IDE 13
Start Page | Tambahan4.java | Tugas.java | Tugas1.java | Tugas3.java | Tugas4.java | Tugas2.java | Tugas5.java
Source History
package Tugas;
//Latihan array untuk pergeseran value elemen
//methode rotate one by one The Reversal Algorithm
public class Tugas5 {
public static void geserkekiri(int arr[], int d)
{
if (d == 0)
return;
int n = arr.length;
d = d % n;
memutar(arr, 0, d - 1);
memutar(arr, d, n - 1);
memutar(arr, 0, n - 1);
}
public static void memutar(int arr[], int start, int end)
{
int temp;
while (start < end) {
temp = arr[start];
arr[start] = arr[end];
arr[end] = temp;
start++;
end--;
}
}
public static void printArray(int arr[])
{
for (int i = 0; i < arr.length; i++)
System.out.print(arr[i] + " ");
}
Output - TugasSD (run)
run:
3 4 5 6 7 1 2 BUILD SUCCESSFUL (total time: 0 seconds)
Type here to search
29°C Cerah
20:32
24/03/2022


TugasSD - Apache NetBeans IDE 13
Tugas6.java
package Tugas;
import java.util.*;
//Latihan array untuk pergeseran value elemen
//methode rotate one by one Block swap algorithm
public class Tugas6 {
public static void geserkekiri(int arr[], int d)
{
memutar(arr,0, d, arr.length);
}
public static void memutar(int arr[], int i,int d, int n)
{
if(d == 0 || d == n)
return;
/*If number of elements to be rotated
is exactly half of array size */
if(n - d == d)
{
swap(arr, i, n - d + i, d);
return;
}
/* If A is shorter*/
if(d < n - d)
{
swap(arr, i, n - d + i, d);
memutar(arr, i, d, n - d);
}
else /* If B is shorter*/
{
swap(arr, i, d, n - d);
run:
3 4 5 6 7 1 2 BUILD SUCCESSFUL (total time: 0 seconds)
Snip & Sketch
Snip saved to clipboard
Select here to mark up and share the


TugasSD - Apache NetBeans IDE 13
Tugas.Tambahan4
package Tugas;
public class Tambahan4 {
public static void main(String[] args) {
// TODO code application logic here
int arr[] = { 1, 2, 3, 4, 5, 6, 7 };
int temp;
//pergeseran berapa banyak
for (int j = 0; j < 2; j++)
{
//pergeseran 1 array
temp=arr[0];
for (int i = 0; i < (arr.length - 1); i++)
arr[i] = arr[i + 1];
arr[arr.length-1] = temp;
System.out.println();
for (int k = 0; k < arr.length; k++) {
System.out.print(arr[k]+" ");
}
}
}
run:
2 3 4 5 6 7 1
3 4 5 6 7 1 2 BUILD SUCCESSFUL (total time: 0 seconds)



Konsep Rotary

Awal

1	**2**	**3**	**4**	**5**	**6**	**7**

Sesudah

3	**4**	**5**	**6**	**7**	**1**	**2**