1.
```
import java.util.Scanner;
class
{
  public static void main (String args[])
  {
    System.out.println(" Name: B.Sireesha\n
                         SAP id: 51834734");
    Scanner sc = new Scanner (System.in);
    System.out.println("Enter no. of ~~student~~
                        elements: ");
    int n = sc.nextInt();
    int [] arr = new int [n];
    System.out.println ("Enter "+n+" elements:"
                        );
    ~~int~~ for( int i=0; i<n; i++)
      {
        arr[i] = sc.nextInt();
      }
  // The above loop is used for taking
  // n number of inputs from user;

  // calling method for sorting
     mergeSort (arr, n);
```

```
System.out.println("Output:\n Array elements
        after sorting using merge Sort:");

for(int i=0; i<n; i++)
{
  // This loop is used to print all the elements
  System.out.print(arr[i] + " ");
}
}

public static void merge(int[] left,
    int[] right, int[] arr, int leftN,
    int rightN)
{
  int i=0, j=0, k=0;
  while (j < leftN && k< rightN)
  {
    // loop to check the condition for sorting.
    if (left[j] < right[k])
    {
    // if left[j] is smaller, that element
    // will be placed in the array.
      arr[i++] = left[j++]
    }
}
```

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516334734
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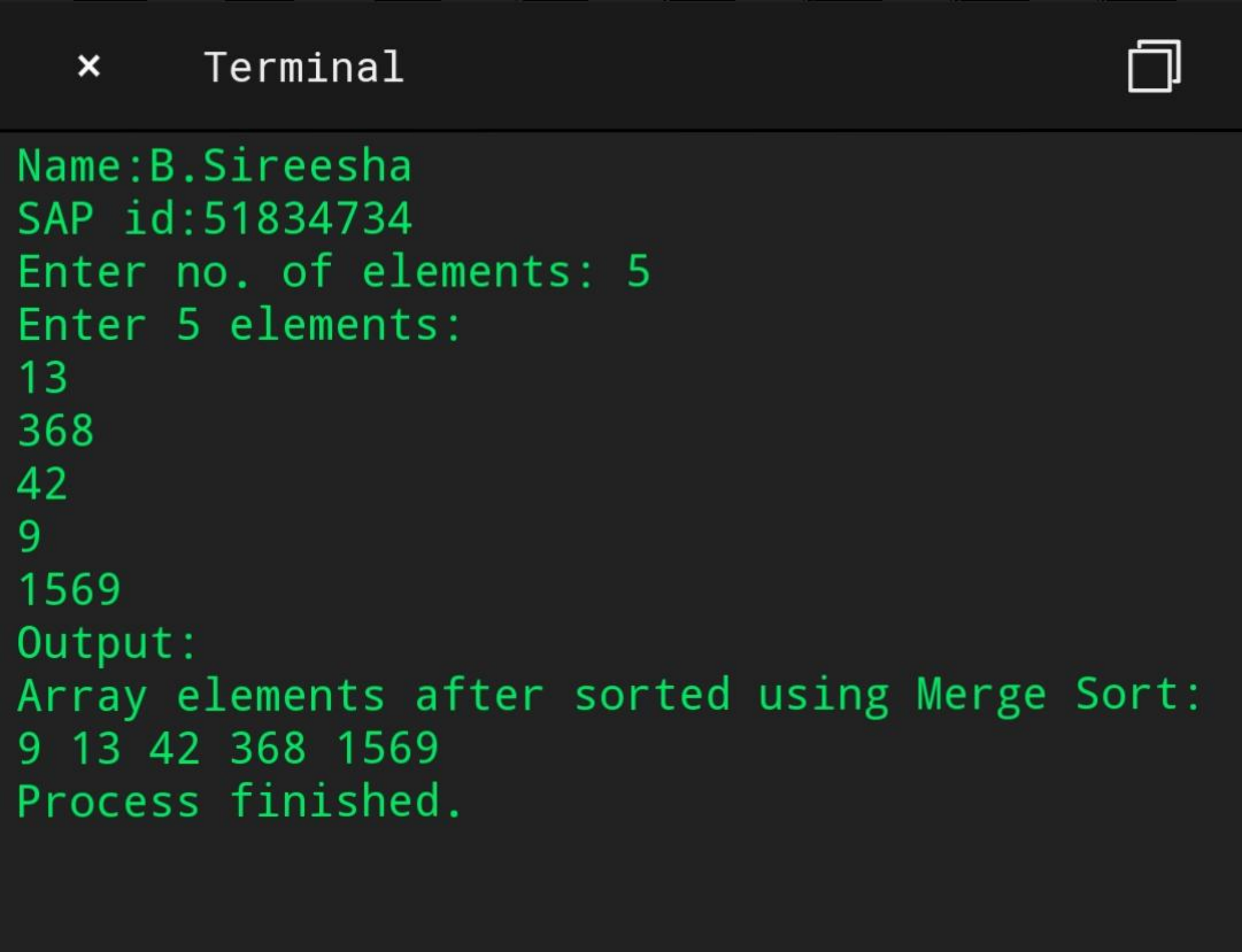
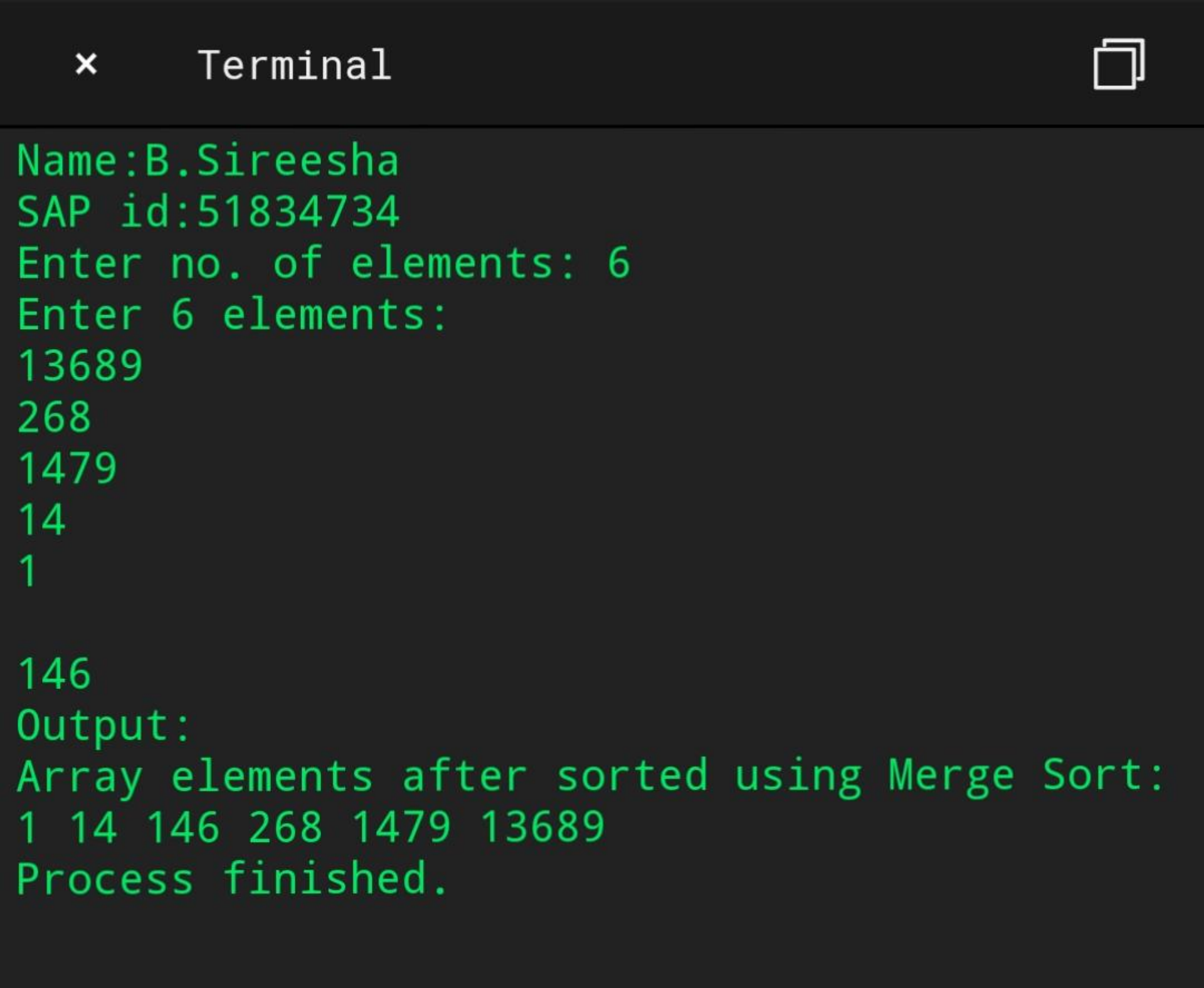
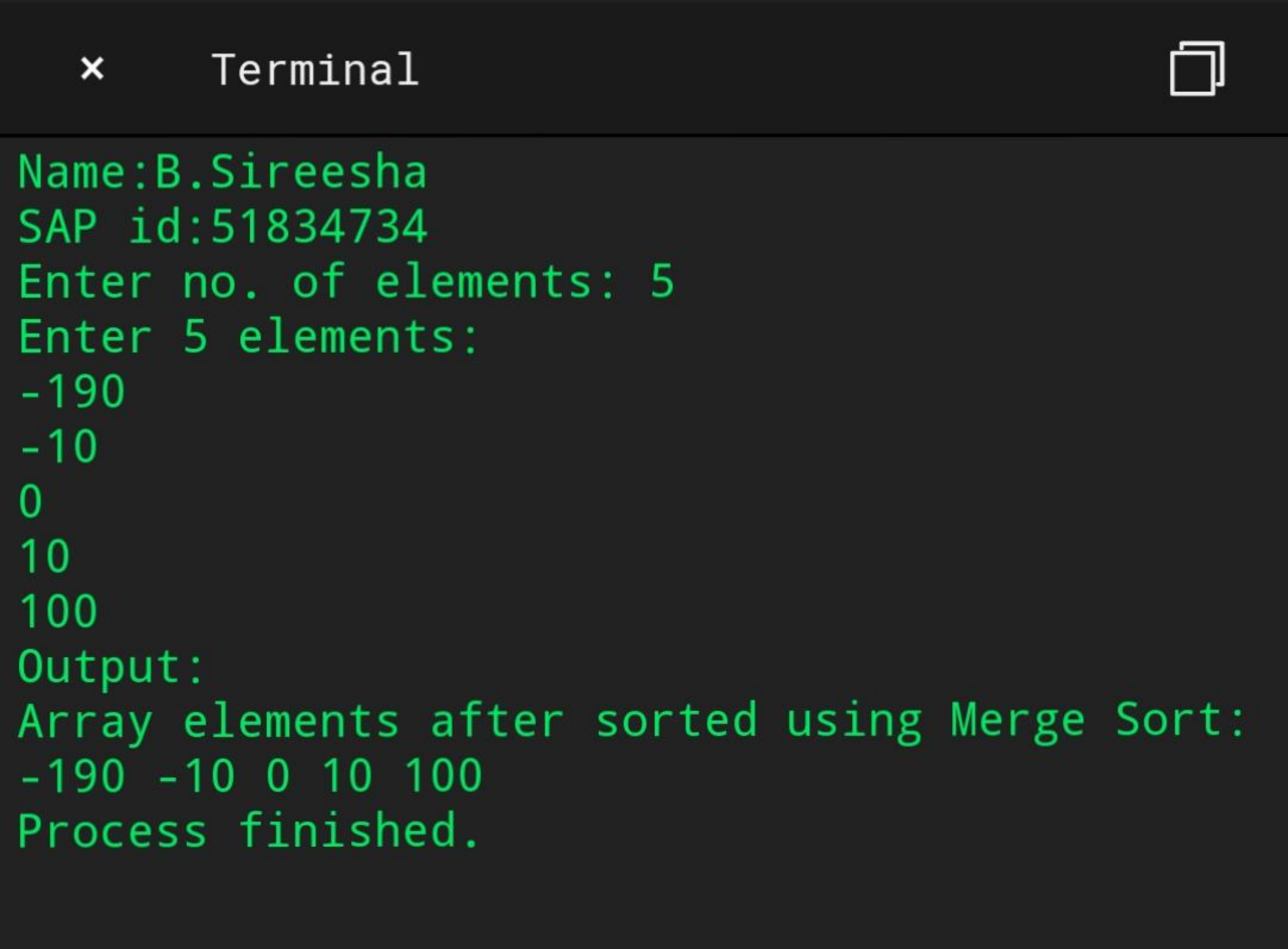
```
else
{
    arr[i++] = right[k++];
}
}
wh: le ( j < leftN)
{
    arr[i++] = left[j++];
}
 while ( k < rightN)
 {
    arr[i++] = right[k++];
 }
}
public static void mergeSort (int arr, int n)
 {
    if (n<2)
    {
      return;
    }
   int mid = n/2;
   int[ ] left = new int [mid];
   int[ ] right = new int [n-mid];
   int k=0;
```

```
for (int i=0; i<n; i++)
{
  // loop breaks the array into two
  // subarrays.
  if (i < mid)
  {
    left[i] = arr[i];
  }
  else
  {
    right[k] = arr[i];
    k++;
  }
}
mergeSort(left, mid);
mergeSort(right, mid);
~~mergeSort~~
merge(left, right, arr, mid, n-mid);
```


Terminal
Name:B.Sireesha
SAP id:51834734
Enter no. of elements: 5
Enter 5 elements:
13
368
42
9
1569
Output:
Array elements after sorted using Merge Sort:
9 13 42 368 1569
Process finished.


Terminal
Name:B.Sireesha
SAP id:51834734
Enter no. of elements: 6
Enter 6 elements:
13689
268
1479
14
1
146
Output:
Array elements after sorted using Merge Sort:
1 14 146 268 1479 13689
Process finished.


Terminal
Name:B.Sireesha
SAP id:51834734
Enter no. of elements: 5
Enter 5 elements:
-190
-10
0
10
100
Output:
Array elements after sorted using Merge Sort:
-190 -10 0 10 100
Process finished.

2 CREATE OR REPLACE FUNCTION

```
tax_fun (salary employee.basic_salary%type)
~~Return~~ RETURN number;
IS
tax number;
BEGIN
If (~~salary~~ salary > 40000) THEN
 tax := salary * 0.5 ;
END IF;
RETURN tax;
END;
/
```

3. DECLARE

P. No. 6

e_name varchar(20);

salary number;

BEGIN

~~Sel~~ SELECT ename, basic_salary into

e_name, salary from employee;

DBMS_OUTPUT.PUT_LINE (e_name||" "||

salary);

```
EXCEPTION
WHEN (id<=0) THEN
DBMS.OUTPUT.PUT_LINE('invalid id');
WHEN no_data_found THEN
DBMS_OUTPUT.PUT_LINE("Error");
WHEN too_many_rows THEN
DBMS_OUTPUT.PUT_LINE("Too many
                      row selected");
WHEN value_error THEN
DBMS_OUTPUT.PUT_LINE("Change the
                      datatype");
END;
/
```