```
PS C:\Users\DELL\OneDrive\Desktop\sample models>
                                                flex homework.l.txt
PS C:\Users\DELL\OneDrive\Desktop\sample models> gcc lex.yy.c
PS C:\Users\DELL\OneDrive\Desktop\sample models> .\a.exe

#include <stdio.h> is a preprocessor directive

void is a DATA TYPE
main is an identifier

BLOCK BEGINS


int is a DATA TYPE
number[30] is an ARRAY

int is a DATA TYPE
i is an identifier
j is an identifier
a is an identifier
n is an identifier
counter is an identifier
average is an identifier


Function
printf("Enter the value of N\n") is a function call

Function
scanf("%d", &n) is a function call
```

```
Function
printf("Enter the numbers \n") is a function call

for is a LOOP statement
i is an identifier
= is an ASSIGNMENT OPERATOR
0 is a CONSTANT
i is an identifier
< is a RELATIONAL OPERATOR
n is an identifier
i is an identifier

Function
scanf("%d", &number[i]) is a function call


for is a LOOP statement
i is an identifier
= is an ASSIGNMENT OPERATOR
0 is a CONSTANT
i is an identifier
< is a RELATIONAL OPERATOR
n is an identifier
i is an identifier

BLOCK BEGINS

for is a LOOP statement
j is an identifier
= is an ASSIGNMENT OPERATOR
i is an identifier
```

```
1 is a CONSTANT
j is an identifier
< is a RELATIONAL OPERATOR
n is an identifier
j is an identifier

BLOCK BEGINS

if is a CONTROL statement
number[i] is an ARRAY
< is a RELATIONAL OPERATOR
number[j] is an ARRAY

BLOCK BEGINS

a is an identifier
= is an ASSIGNMENT OPERATOR
number[i] is an ARRAY

number[i] is an ARRAY
= is an ASSIGNMENT OPERATOR
number[j] is an ARRAY

number[j] is an ARRAY
= is an ASSIGNMENT OPERATOR
a is an identifier

BLOCK ENDS

BLOCK ENDS
```

```
BLOCK ENDS


Function
printf("The numbers arranged in descending order are given below \n") is a function call


for is a LOOP statement
i is an identifier
= is an ASSIGNMENT OPERATOR
0 is a CONSTANT
i is an identifier
< is a RELATIONAL OPERATOR
n is an identifier
i is an identifier

BLOCK BEGINS

Function
printf("%d\n", number[i]) is a function call

BLOCK ENDS


Function
printf("The 2nd largest number is  = %d\n", number[1]) is a function call

Function
printf("The 2nd smallest number is = %d\n", number[n - 2]) is a function call
```

```
average is an identifier
= is an ASSIGNMENT OPERATOR
number[1] is an ARRAY
number[n - 2] is an ARRAY
/ is an OPERATOR
2 is a CONSTANT

counter is an identifier
= is an ASSIGNMENT OPERATOR
0 is a CONSTANT


for is a LOOP statement
i is an identifier
= is an ASSIGNMENT OPERATOR
0 is a CONSTANT
i is an identifier
< is a RELATIONAL OPERATOR
n is an identifier
i is an identifier

BLOCK BEGINS

if is a CONTROL statement
average is an identifier
== is a RELATIONAL OPERATOR
number[i] is an ARRAY

BLOCK BEGINS
```

```
counter is an identifier

BLOCK ENDS

BLOCK ENDS


if is a CONTROL statement
counter is an identifier
== is a RELATIONAL OPERATOR
0 is a CONSTANT

Function
printf("The average of %d  and %d is = %d is not in the array \n",
            number[1], number[n - 2], average) is a function call


else is a CONTROL statement

Function
printf("The average of %d  and %d in array is %d in numbers \n",
            number[1], number[n - 2], counter) is a function call

BLOCK ENDS
```