

# ESc101N: Fundamentals of computing(Lab Session 4)

August 26, 2009

## Instructions

1. Please read the question carefully and write the program accordingly
2. Make sure that the TA has graded you program
3. The marks are distributed as follows. You get 60% of the marks if the basic algorithm is current, 20% if you manage to compile and execute and 20% for writing the code cleanly, i.e. using proper variable names, intending and making the code more readable.

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**Question 1.** Array reading and finding maximum and minimum.

- (a) (5 marks) Declare an array of 100 integers. Read from the user a list size  $n$  and read that many integers into the array.
- (b) (5 marks) Find the minimum, maximum and the average of the elements in the array and print it.

The sample output should be as follows.

```
$ ./a.out
enter the list size: 5
start entering the numbers
3
-1
4
6
7
the minimum, maximum and average of {3,-1,4,6,7} are -1, 7 and 3.7999999999999998 respectively.
$
```

**Question 2.** (0 marks) (Not to be graded). Given a strings of octal digits (i.e. 0-7) think of the string as an integer and express it in binary.

The skeleton of the program is given below.

```
# include <stdio.h>
int main()
{
    char a[1001], b[3001];
    printf("enter the number in octal: ");
    scanf("%1000s",a);
    /* write your loop here */
    printf("The octal number %s in binary is %s\n",a, c);
}
```