

# ESc101N: Fundamentals of computing(Lab Session 4)

August 25, 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 and maximum element in the array and print it.

The sample out put should be as follows.

```
$ ./a.out
enter the list size: 5
start entering the numbers
3
-1
4
6
7
the minimum of {3,-1,4,6,7} is -1 whereas the maximum is 7
$
```

**Question 2.** (0 marks) (Not to be graded). Given a two strings of digits (read it using `scanf("%s", str)`) and treat them as integers. Add up the integers and print it. Thus if the input strings are 134 and 246, then the output should be 380. Do not convert the string into integers as the number of digits can be large. Take particular care when the strings are of different lengths.

The skeleton of the program is given below.

```
# include <stdio.h>
int main()
{
    char a[1000], b[1000],c[1001];
    printf("enter the first number: ");
    scanf("%999s",a);
    printf("enter the second number: ");
    scanf("%999s",b);
    /* write your loop here */
    printf("The sum is %s\n", c);
}
```