DALHOUSIE UNIVERSITY
Inspiring Minds

Fall 2017 (Sep5-Dec5)
Faculty of Computer Science

CSCI 2132 — Software Development

Assignment 6

Due: *Thursday, Nov 16, 2017 by 11:59 p.m.*
Instructor: Vlado Keselj, CS bldg 432, 494-2893, vlado@dnlp.ca

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Note: This is a partial A6 assignment. Please check later for a full version.

Assignment Instructions:

Solutions to this assignment must be submitted through SVN, in a similar way as for the previous assignment.

The first question refers to the Lab 7 and must be submitted in the SVN directory *CSID*`/lab7`, where *CSID* is your FCS userid.

The answers to all other questions must be submitted in your SVN directory: *CSID*`/a6` where *CSID* is your CS userid. Remember that you need to add to `svn` the directory as well as any files that you want submitted.

1) (10 marks) Make sure that you complete the Lab 7 as required. There are a set of files that need to be submitted in this lab in your SVN directory for the course named "*CSID*`/lab7`" where *CSID* is your CS userid.

You must make sure that the location of this directory is exactly as specified, and that the directory and all required files are submitted properly to SVN before the deadline.

The following files need to be submitted: `hello.c` (2 marks), `numbers.c` (2 marks), and `binary.c` (6 marks).

2) (20 marks) Record your ansswers in a plain textual file named `a6q2.txt` and submit using SVN.

a) (10 marks) Briefly explain the following function, and illustrate its input and output on a small example with $n = 5$:

```
int f1(int n, int a[]) {
  int *p = a, tmp = a[n-1];
```

```
  for (; n > 0; n--, p++) {
    int tmp1 = *p;
    *p = tmp;
    tmp = tmp1;
  }

  return n;
}
```

b) (10 marks) Briefly explain the purpose of the following function. Use a small example to illustrate the function.

```
int f2(char *s) {
  char *p;

  for (p = s; *p != '\0'; p++)
    ;
  for (--p; p >= s && (*p < '0' || *p > '9'); p--)
    ;

  if (p < s)
    return 1;

  while (p >= s && *p >= '0' && *p <= '9') {
    if (*p == '9')
      *p = '0';
    else {
      (*p)++;
      return 0;
    }
    p--;
  }

  if (p >= s && *p == ' ') {
    *p = '1';
    return 0;
  }

  return 1;
}
```