Computer Programming

Quiz1

Oct. 21, 2022

Problem 1

- Write a simple integer arithmetic calculator program.

Problem 1

- **Program output**

```
[ohyong@cse Quiz1_s123]$ vi pr1.c
[ohyong@cse Quiz1_s123]$ gcc pr1.c -o pr1
[ohyong@cse Quiz1_s123]$ ./pr1
Enter the formula: 10+3
13
[ohyong@cse Quiz1_s123]$ ./pr1
Enter the formula: 10-3
7
[ohyong@cse Quiz1_s123]$ ./pr1
Enter the formula: 10*3
30
[ohyong@cse Quiz1_s123]$ ./pr1
Enter the formula: 10/3
3
[ohyong@cse Quiz1_s123]$ ./pr1
Enter the formula: 10%3
1
[ohyong@cse Quiz1_s123]$ ./pr1
Enter the formula: 10^3
You entered an unsupported operator.
```

Problem 2

- Write a program that receives an integer less than 1 million from the user and calculates the total number of digits of the given integer.

Problem 2

- **Program output**

```
[ohyong@cse Quiz1_s123]$ vi pr2.c
[ohyong@cse Quiz1_s123]$ gcc pr2.c -o pr2
[ohyong@cse Quiz1_s123]$ ./pr2
Enter an integer: 12345
Total number of digits: 5
```

```
[ohyong@cse Quiz1_s123]$ ./pr2
Enter an integer: 221021
Total number of digits: 6
```

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Problem 3

- **<u>Implement</u>** the MulDigits() function that takes a three-digit integer and returns a value multiplied by all the digits of the integer. 0 points if the function is not implemented.

- function prototype
  - int MulDigits(int n);

Problem 3

- **Program output**

```
[ohyong@cse Quiz1_s123]$ vi pr3.c
[ohyong@cse Quiz1_s123]$ gcc pr3.c -o pr3
[ohyong@cse Quiz1_s123]$ ./pr3
Enter an integer between 100 and 999 : 987
The multiplication of all digits in 987 is 504
```

```
[ohyong@cse Quiz1_s123]$ ./pr3
Enter an integer between 100 and 999 : 345
The multiplication of all digits in 345 is 60
```

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Submission

- **Submit to CSE server**

At the end of the Quiz1, submit your C sources file by typing

~gs1401/bin/submit Quiz1_s123 pr1.c pr2.c pr3.c   // due : 11:50 am

You may check that you have submitted your source code correctly by typing

~gs1401/bin/submit -check

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