

Basic Syntax in C

Lecture 1 Assignments

Name: Nathaniel Enrique Catalan Eulin

1. Write a program that prints the following text at the terminal.
 - a. In C, lowercase letters are significant.
 - b. main is where program execution begins.
 - c. Opening and closing braces enclose program statements in a routine.
 - d. All program statements must be terminated by a semicolon.

```
1 #include <stdio.h>
2
3 int main(void){
4     printf("In C, lowercase letters are significant.\n");
5     printf("main is where program execution begins.\n");
6     printf("Opening and closing braces enclose program statements in a routine. \n");
7     printf("All program statements must be terminated by a semicolon.");
8     return(0);
9 }
```

Output: assignment_lec1_c1.c

2. What output would you expect from the following program?

```
#include <stdio.h>
int main (void){
    printf ("Testing...");
    printf ("....1");
    printf ("...2");
    printf ("..3");
    printf ("\n");
    return 0;
}
```

Answer:

I expect from this program an output displaying the message "Testing.....1...2..3" in the terminal, judging from the content of the several print functions.

3. Write a program that subtracts the value 15 from 87 and displays the result, together with an appropriate message, at the terminal.

```
1  #include <stdio.h>
2
3  int main(void){
4      int difference;
5
6      difference = (87 - 15);
7
8      printf("87 minus 15 is %d.", difference);
9
10     return(0);
11
12 }
```

Output: assignment_lec1_c2.c

4. Identify the syntactic errors in the following program. Then type in and run the corrected program to ensure you have correctly identified all the mistakes.

```
#include <stdio.h>
int main(Void)
    INT sum;
    /* COMPUTE RESULT
    sum = 25 + 37 - 19
    /* DISPLAY RESULTS //
    Printf ("The answer is %i\n" sum);
    return 0;
}
```

Syntactic Errors:

1. Line 2; main function lacks '{', and the 'Void' should all be in lowercase (void).
2. Line 3; INT should be in lowercase – 'int'
3. Line 4; Bad comment, lacks '*' to end the comment, or just use '//' instead, for it's just a single-line comment
4. Line 5; the statement should be terminated with a semicolon (;).
5. Line 6; Another mistake in comments; use '//' for single-line comments
6. Line 7; the print function does not have an uppercase letter. It should be 'printf'. Also lacks a comma between the string to be printed and the variable.

```

1  #include <stdio.h>
2  int main(void){
3      int sum;
4      // COMPUTE RESULT
5      sum = 25 + 37 - 19;
6      // DISPLAY RESULTS
7      printf ("The answer is %i\n", sum);
8      return 0;
9  }
10

```

Output: assignment_lec1_c4.c

5. What output might you expect from the following program?

```

#include <stdio.h>
int main (void) {
    int answer, result;
    answer = 100.
    result = answer-10;
    printf ("The result is %i\n", result + 5);
    return 0;
}

```

Answer:

I expect from the following program to fail in compiling since there is an existing syntactic error. In line 4, the statement declaring the variable 'answer', it terminated with a period (.) instead of a semicolon (;).