

UNIVERSITY OF THE PHILIPPINES VISAYAS
CMSC 21 | Fundamentals of Programming
2nd Semester AY 2021-2022

Judelle Clareese E. Gaza
BSCS CMSC 21 - 1

Basic Syntax in C
Lecture 1 Assignments

1.

```
/* Judelle Gaza - CS21 - Assignment 1; assignment_lec1_c1.c*/

#include <stdio.h> //Preprocessor Directive
int main(void)    //main function
{
    /*using printf to print the following statements to the terminal.
    utilizes "\n" to start a new line for each statement*/
    printf("In C, lowercase letters are significant.\n");
    printf("main is where the program execution begins.\n");
    printf("Opening and closing braces enclose program statements in a routine.\n");
    printf("All program statements must be terminated by a semicolon.");

    return 0;
}

/* Judelle Gaza - CS21 - Assignment 1; assignment_lec1_c1.c*/

#include <stdio.h> //Preprocessor Directive
int main(void)    //main function
{
    /*using printf to print the following statements to the terminal.
    utilizes "\n" to start a new line for each statement*/
    printf("a. In C, lowercase letters are significant.\n");
    printf("b. main is where the program execution begins.\n");
    printf("c. Opening and closing braces enclose program statements in a routine.\n");
    printf("d. All program statements must be terminated by a semicolon.");

    return 0;
}
```

2. The expected output would be:
Testing.....1...2...3

```
/* Judelle Gaza - CS21 - Assignment 1; assignment_lec1_c2.c*/

#include <stdio.h>
int main(void)
{
    //Declaring variable types
    int a,b,result;

    //Assigning values to a , b , and result
    a = 15;
    b = 87;
    result = b - a;

    //outputs the integers and the difference to the terminal
    printf("Subtracting %d from %d results to %d", a, b, result);
    return 0;
}
```

3.

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.

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

Syntactic errors in the program would be:

- Line 2:** `int main(Void)`
 - V is capitalized
- Line 4:** `INT sum;`
 - INT is capitalized
- Line 5:** `/* COMPUTE RESULT`
 - Comment was never closed
- Line 6:** `sum = 25 + 37 - 19`
 - Statement not terminated by a semicolon (;)
- Line 7:** `/* DISPLAY RESULTS //`
 - Comment was never closed
- Line 8:** `printf ("The answer is %i\n" sum);`
 - Sum is not preceded by a comma (,) to separate the string and the variable

Correct execution would be:

```
/* Judelle Gaza - CS21 - Assignment 1; assignment_lec4_c4.c */

#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;
}
```

5. The output will result to a syntax error:

error: expected ';' before 'result'

Line 4: answer = 100.

- 100 should be followed by a semicolon (;) instead of a period (.) to terminate the statement