SystemC & Behavior Coding

Assignment 1, 2025-09-18

Abstract

Based on the templates given, develop two (2) versions of the infamous "Hello World" C program. You must use a C compiler, not a C++ version, for this assignment.

Please read carefully and follow all the instructions. All inputs and outputs required are described in the text. And do follow strictly the coding style described in the first class. Five (5) points will be taken for each bug, missing required output behavior, and incorrect coding style.

"Hello World" Version 1

Code template

```
# include <stdio.h>
int main(int argc, char *argv[]) {
   /*
      Please add your statements here
   */
   printf("Hello World!\n");
   return(0);
}
```

Description

1. Please add a `printf` statement that prints the name of the executable plus 'says'.
2. For example, if your executable is named 'run', then executing run will give

   `run says Hello World!`
3. To print a character array, say, `str`, the formatted output statement is

   `printf("%s", str);`

"Hello World" Version 2

Code template

```
# include <stdio.h>
int main(int argc, char *argv[]) {
   printf("Hello World!\n");
   // Please add your loop here
   return(0);

}
```

Description

1. Please add a loop statement that prints all the input variables, but the first one, the executable name. Then the program concludes the print with a newline control.
2. For example, if your executable is named 'echo', then execute echo like

    ```
    echo I do not like mosquitoes
    ```
    then the program prints
    ```
    Hello World!
    I do not like mosquitoes
    ```

Please turn in the source code only. Do not turn in the executable.
Make use of code generator AI as much as possible so you can complete the assignment in time. Though you can choose to code all by yourself, it is also crucial to learn how to make use of AI to help you work efficiently. Verify thoroughly the AI-generated code with the verification skills we talked about in the first class.

Due date
3:00PM, September 25th, 2025

Score weight (towards the final grade)   5%