Lab Module

❖ **Write a simple "Hello World" program in two different programming languages of your choice. Compare the structure and syntax.**

Ans. Python:

```
print("Hello, World!")
```

C Language:

```
#include <stdio.h>

int main() {
    printf("Hello, World!\n");
    return 0;
}
```

❖ **Comparison:**

1. **Syntax:**
    - **Python:** The syntax is simple and concise. The print() function is used to output text to the console.
    - **C:** The syntax is more structured. It requires including header files like #include <stdio.h> for input/output operations, and the program execution starts from the main() function.
2. **Structure:**
    - **Python:** There is no need to declare a function to run the code (besides main()), making it easy to execute small scripts.

- **C:** A main() function is necessary, which is the entry point for the program. It also uses a return type (int) and requires; after each statement.

3. **Readability:**
    - **Python:** The readability is high due to its minimalistic syntax.
    - **C:** More verbose and requires a bit more setup, like including libraries and defining the return type of the main() function.
4. **Compilation vs. Interpretation:**
    - **Python:** Interpreted language, meaning code is executed directly without a compilation step.
    - **C:** Compiled language, so you need to compile the code first before running it.