MODULE PRACTICE

Syntax in C

```c
// Statements must end in a semicolon (;)
// correct
printf("Hello World!");

// error
printf("Hello World!")

// Code elements are case sensitive
// correct
printf("Hello World!");

// error
PRINTF("Hello World!");
```

The rules that dictate the correct format of code for a specific programming language are known as syntax.

Examples of syntax in C are:

- All statements must end with a semicolon, `;`
- Keywords and other code elements are case-sensitive

When compiling C code, an error will occur when the syntax of the code is incorrect.

Compiling C Code with `gcc`

```
gcc script.c
gcc script.c -o myProgram
```

`gcc` is an application used to compile C programs into an executable that can run on the target computer. `gcc` stands for GNU Compiler Collection.

`gcc` compiles C code using the code file as an unflagged command-line argument. The output executable file will be called `a.out`. The `-o` flag followed by some text can be used to designate the name of the output executable file.

Comments in C

```
// Comments

/* This review content is
about comments and how they
can be used to document code */

// This is a line comment

/* This is a
block comment */
```

In C, comments are text within code that will be ignored by the compiler. They are used to document code.

Line comments begin with a double forward slash, `//`. All text after `//` will be part of the comment until a new line is reached.

Block comments begin with a forward slash and asterisk, `/*` and end with an asterisk and forward slash, `*/`. Block comments can span multiple lines as new lines are part of the comment.