**Buffer Overflow**

**Part 1: Buffer Overflow in C**

My alias name which is 8 characters

Text

Description automatically generated

What happens? I get the response back with my alias name

What does the output message mean? Command executed correctly

Graphical user interface, text

Description automatically generated

What happens? I get the response “Aborted”

What does the output message mean? The compiler created the stack smashing detected fault in response to its buffer overflow protection technique.

**Part 2: Buffer Overflow in Python**

Graphical user interface, text, application, Teams

Description automatically generated

What is the result?

We received error message : IndexError: list assignment index out of range.

IndexError indicates that there is an issue with the index access method. An index is a value contained within an iterable object, such as a string or a list.

The message "list assignment index out of range" indicates that an attempt was made to assign an item to a nonexistent index.

Graphical user interface, text

Description automatically generated

What is the result?

Several self-explanatory errors, such as C0304, are visible in the code. Pylint assigns a letter code to each error to differentiate its severity and nature. There are five distinct types of mistakes:

C: Convention (for any violation of code convention)

R: Refactor (for any issue related to code smell and refactoring)

W: Warning (for any non-error programming-level issue).

E: Error (for any programming-level issue that is an error)

F: Fatal (for any major issue that prevented the execution of Pylint).

Pylint also assigns a score out of 10 to our code based on the number of faults present.