

## Online Computing Education ScrewBall Script

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Hello, and welcome to your first class on ScrewBall. We will be covering the basic syntax of the language along with some common commands.

Each line of code needs to end with a hashtag while comments use slash slash c. Printing output is done with the command output followed by open and closing parentheses. Text in print statements needs to be surrounded with quotes as well. Also important to note, array indices in SB start at one.

Variables in SB are not case sensitive and can begin with anything except a double hyphen or a hashtag as all variables must be preceded by a double hyphen. A variable with a capital g in front of the double hyphen indicates that it is a global variable.

The primitives of SB include numbers which can be designated with std, which has no decimals, sFloat for four digits of accuracy, or dFloat for 16 digits of accuracy. Variables do not have a maximum size in SB either.

This is also true of strings, which can be created by putting a capital s in front of the variable declaration. Characters can be accessed by index to create substrings from begin index to end index inclusive using the substring method. Since strings are arrays of characters, the index of the first character is one.

Operators in SB are addition, subtraction, multiplication, division, modulus, concatenation, floor, and ceiling.

Arrays can be created by putting a capital a in front of the variable declaration and can be altered as needed for a dynamic data structure. Initializing the array can be done on creation by putting elements in parentheses with commas between each element, and multidimensional arrays can be created by putting a colon between these pairs of parentheses.

SB loops can be created with the following syntax, where the code to be executed is in place of the ellipsis. Loops default to incrementing by steps of one and do not skip elements. The increment step size can be changed by adding a dash and the step size before the loop hashtag.