**Q: What are the main functional differences between a while and a for?**

A:

While loop is a general iteration construct of Python. It repeatedly executes a block of statements as long as a test at the top keeps evaluating to a true value. If the test is false to begin with, the body never runs and the while statement is skipped.

On the other hand, for loop is designed to iterate across items in a sequence or other iterable. It’s generally simpler to code and often quicker to run than a while loop. Although the while can imitate the for with counter loops, it takes more code and might run slower.

**Q: What’s the difference between break and continue?**

A:

The continue statement causes an immediate jump to the top of a loop.

The break statement causes an immediate exit from a loop.

**Q: When is a loop’s else clause executed?**

A:

The else clause in a while or for loop will be run once as the loop is exiting, if the loop exits normally (without a break).

**Q. How can you code a counter-based loop in Python?**

A:

A counter-based loop in Python can be coded with both while statement and for statement.

With while statement, the index must be keep track manually.

With for statement, the range built-in function is enough to generate successive integer offsets.

**Q: What can a range be used for in a for loop?**

A:

It can be used to implement a fixed number of repetitions, to scan by offsets instead of items at offsets, to skip successive items as you go, and to change a list while stepping across it.