

## Multimedia Appendix 1: Definition of HTML, API, Web crawler, Python package, and XML

- HTML: “Hypertext Markup Language is the standard markup language for creating web pages and web applications” (<https://en.wikipedia.org/wiki/HTML>).
- API (Application Programming Interface), a set of functions and procedures allowing the applications to communicate directly with the website (healthcare forums), and collect the requested information from the healthcare forum and community. ([https://en.wikipedia.org/wiki/Application\\_programming\\_interface](https://en.wikipedia.org/wiki/Application_programming_interface))
- Web crawler: Web crawler is a web search engine that can systematically borrow the content of a website and collect the requested information.
- Python package: python is a high-level programming language (<https://www.pythonforbeginners.com/learn-python/what-is-python/>). Python package is a collection of modules in directories that give a package hierarchy. “A Python module is simply a Python source file, which can expose classes, functions and global variables.” (<https://softwareengineering.stackexchange.com/questions/111871/module-vs-package>)  
Please see the following link for more information:  
<https://docs.python.org/3/tutorial/modules.html>
- XML: “Extensible Markup Language (XML) is a markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable.”  
<https://en.wikipedia.org/wiki/XML>