## Python for QA. Part 1.

Trainer: [Yevgen Runts](https://kb.epam.com/users/viewuserprofile.action?username=yevgen_runts)

Location: Lviv

Available Languages: UA

Level: Beginner, Intermediate

### Audience

This training is made for:

* Quality Assurance Engineers;
* Junior Software Engineers;

### Training Description

This training course is developed to learn Python programming language from scratch. Practical examples solve real life QA’s problems and tasks. Course also focuses on exploring and mastering Python third party libraries. Each module contains homework for practice and knowledge consolidation (2-3 hours are needed for solving each homework). For better development experience Git and PyCharm are used.

| Training Type | Duration  (Hrs) | Cost per Employee  (USD) |
| --- | --- | --- |
| Classroom  (Max Group Size - 12) | 7.5 |  |

### Necessary Knowledge

* Basic skills in Linux
* Experience in scripting using any programming language

### Training Goals

After the training attendees will be able to:

* Use Python to automate routine tasks;
* Implement scripts in Python to work with HTTP, HTML, JSON and XML;
* Use PyCharm IDE for Python development;
* Use GIT as a version control system;

### Training Agenda

| Module | Lecture Duration  (Hrs) | Practice Duration  (Hrs) |
| --- | --- | --- |
| **Module 0: Course introduction**   * Agenda * Course structure * Working environment | 0.5 | 0.25 |
| **Module 1: Introduction to Python**   * Why Python? * Python interpreter * Ecosystem | 0.5 | 0.25 |
| **Module 2: Python Basics. Part 1.**   * Build-in data types * Operators * Type casting and detection * Data types methods and operations | 1 | 0.5 |
| **Module 3: Python Basics. Part 2.**   * Decision Making * Blocks * Loops * Functions | 1 | 0.5 |
| **Module 4: Python Intermediate**   * List comprehension * Functional programing tools * Modules and packages * Files * Exceptions * CSV | 1 | 0.5 |
| **Module 5: HTTP, HTML, JSON, XML**   * Package requests * Module json * Work with XML * Parse HTML | 1 | 0.5 |
| Total: | 5 | 2.5 |
| Training duration: | 7.5 | |

### Technical Equipment & Software

* **Projector**
* **Blackboard with markers**

### ****Recommended Reading****

* [Python Tutorial](https://docs.python.org/3/tutorial/)
* [Google's Python Class](https://developers.google.com/edu/python/)
* [Official Python Documentation](https://docs.python.org/3/)
* [Python Cookbook](http://shop.oreilly.com/product/0636920027072.do)