



Python training program

As technological solutions advance, training and certifications become a strategic part for companies.

Expanding the knowledge of your IT professionals and complying with industry standards is the visa that guarantees the sustainability and development of companies.

Our mission is to promote the adoption of technology to help our clients win and generate results.

MIRA Telecommunications has been acting as a catalyst for core and innovative technologies in the IT industry for 20 years. Our passion for what we do has led us to include new capabilities in order to continue driving success for our clients.

We hope to continue being the bridge that helps your professional growth to add value to the IT industry.

Thank you for sharing this path with us.



Python is a general-purpose, high-level, object-oriented, interactive, interpreted programming language. With our training you learn to build web applications, analyze data, automate operations and create reliable and scalable business applications

Courses

- Python Basic
- Python Professional
- Python Backend and Microservices
- Python FrontEnd
- Python Analytics and Automation



Course details

Course Description:

Develop routines and programs with the most basic code functionalities, learn all the necessary concepts, nomenclature and syntax of the language. Put into practice all the rules of object-oriented programming using directives and statements.

Course Objectives

- Introduction to the Programming Language
- Installations
- Hello World
- Integers, reals and arithmetic operators
- Booleans, logical operators and strings
- Lists
- tuples
- Dictionaries
- Relational operators
- Conditional statements
- loops
- Characteristic
- Classes and Objects
- Inheritance
- Multiple inheritance
- Strings and methods
- Lists and their methods
- Dictionaries and their methods
- Encapsulation
- Higher order functions
- MAP function
- FILTER function
- REDUCE function
- Lambda functions
- List comprehension
- Generators
- Decorators
- Decoration classes
- Exceptions
- Standard input rawInput
- Raw input to standard output
- Modules (Modules)

Course duration:

12 hours



Course details

Course Description:

Program advanced routines using the language, such as connecting and consuming data from a MySQL database and many more, using ORM drivers, manipulate images and any type of multimedia objects, learn error handling, logging and use of WebScrapping with the language to achieve advanced features. Tasks on the web.

Course Objectives

- Create MySQL connection
- Create table
- Close connection
- Connection under context
- Environment Variables
- Insert records
- Values in sentences
- Insert multiple records
- Get logs
- Get pt2 records
- Update records
- Delete records
- Create PostgreSQL connection
- What is a web scraper?
- Get web page
- substring
- Regular expressions
- Read files
- Check_circle_outline
- Beautiful Soup Bookstore
- Search for an item
- Search for multiple elements
- Search by attributes
- Child elements through attributes
- Search by CSS classes
- Child nodes
- Sibling nodes
- Parent nodes
- Element attributes



- Work with images
- Upload image
- Convert image
- Rotation
- Resize
- Crop image
- Paste image
- Filters
- Pixels
- Bands
- Multiple pixels
- Sources
- thumbnails
- PyTest installation
- Pytest class
- Run unit tests
- Setup and TearDown
- Project structure
- Create new task
- Error handling
- Markers
- Skip tests
- Provide data to tests
- Fixtures like setup and teardown
- Test parameterization

Course duration:

12 hours

Python Backend and Microservices

Course details

Course Description:

Program advanced Web Services that allow the consumption of data through generic HTTP methods from any web application, desktop or mobile, these services can be API REST or API REST Full based on complex architectures of microservices or simple architectures for querying and data modification in any database manager in the cloud, on-premise or hybrid system.

Course Objectives

- API Web Services
- REST vs. RESTFULL services
- Microservices
- Postman installation
- Postman Induction
- Installation and configuration of Backend Server
- MySQL server installation and configuration
- Creation of MySQL Database
- Creation of tables and fields
- FastAPI
- FastAPI commands
- JSON commands
- GET methods
- POST methods
- PUT methods
- DELETE methods
- ORM to manipulate Databases
- Development of CRUD in API RESTFULL
- Asynchronous Requests
- Response states
- Log recording in the backend
- Testing with Postman
- Error handling

Course duration:

12 hours



Course details

Course Description:

Learn to use the most common and versatile frameworks to develop Front end or end user applications (Web, desktop and mobile), deploy these applications in containers or in spaces on the cloud, obtain all the knowledge of UX/UI design and development with Python tools.

Course Objectives

- Introduction to the Python Web course
- What is Flask
- WSGIpython
- Flask development and installation environment
- Create Flask server
- Hello world (first web page)
- Render template
- Dynamic web pages
- Loops and conditionals
- Jinja2 Templates
- Parameters
- What is the query string?
- Query reading
- Static files
- Template inheritance
- Links
- Callbacks
- Paint form
- Macros
- Macros in Jinja2
- Get form values
- CSRF
- Validations
- Task model
- Form to create tasks
- Create tasks



- List tasks
- Edit table structure
- Edit task
- Delete task
- Pagination
- Show homework
- Active class

Course duration:

20 hours

Python Analytics and Automation

Course details

Course Description:

Learn the best tricks for the complete automation of repetitive tasks on any OS and for the management and processing of millions of records and thus facilitate decision making by creating data transformation processes.

Course Objectives

- Magic commands
- Code introspection
- File manipulation with I Python
- Create files with I Python
- Numpy library installation
- Arrangements
- Operations
- Type of data
- Create arrangements
- Get and update items
- Sub Arrays
- Vectorize functions
- Copies and views
- Arrays
- Aggregation methods
- Transposition
- Filters and conditions
- Conditions
- Where and Select functions
- Create and read pt1 files
- Create and read pt2 files
- Modify arrangements
- Ordering
- Matplotlib library installation
- 2D graphics
- Histograms



- Contour diagrams
- 3D graphics
- Pandas library installation
- Series
- Create series
- Null values
- DataFrame pt1
- DataFrame pt2
- Columns of the DataFrame
- Read csv files
- Data cleansing
- loc attribute
- Ordering
- Search by ranges
- Search between options
- String methods
- Grouping
- Conditional
- iLoc attribute
- Task automation
- Create Droplets
- Create user
- Local server
- Install database
- Remote server
- Run gunicorn server
- Generate service
- Configure Nginx server
- Fabric library
- Run commands
- Run commands as super user
- Flags
- Argument passing
- Upload and get files
- Change of directories
- Execution under context
- Local commands
- Connection with remote servers
- Connection via keys
- Environments

Course duration:

20 hours