# HANDS-ON PYTHON WORKSHOP

Learn python language starting from basics to advanced topics and apply your knowledge in voice assistant applications.



### WORKSHOP DESCRIPTION

Python is a language with a simple syntax and a powerful set of libraries and opens up the path to establishing machine learning and data analytics careers. As an aspiring python programmer, it provides several job opportunities and promises high growth with huge salary prospects in big companies such as Facebook, Amazon, Netflix, Google, and NASA.

This workshop aims to teach python language to students without prior programming experience in just 2 weeks and deliver the basic programming principles such as operations, control structures, data types, etc. Also, it covers advanced topics in python such as dictionaries and list manipulation, creating and calling functions, and file manipulation. Our workshop includes practice and debugging sessions to enrich the students' knowledge, and grasp of python and enhance their problem-solving skills. Finally, applying the knowledge of the course content in an innovative voice assistant application and in-class competition.

At the end of this workshop, students will have a comprehensive understanding of python and implement practical and innovative speech assistant project.



#### AT A GLANCE

#### **Duration**

12 hour

#### **Objectives**

- Understand python basics.
- Learn to write and test Python 3 code.
- Dive into more advanced topics of python 3.
- Build voice recognition application using the integrated knowledge .

#### Requirements

- Internet Connection
- Min Windows version: 10
- Min python version: 3.7.12
- Visual Studio Code

#### **Benefits**

Get Certified by Artificial Intelligence Research Center (AIRC-AU)





## WORKSHOP & AGENDA

Time	Topic Agenda	Faculty
10 min	Workshop Overview	Dr. Sharif Makhadmeh
30 min	Project Demo	Eng. Lamees Dalbah
10 min	Introduction to Python	Eng. Lamees Dalbah
20 min	Starting with Python Editor	Eng. Shaimaa Kouka
30 min	Comment and Print	Eng. Lamees Dalbah
30 min	Variables and Simple data types	Eng. Shaimaa Kouka
30 min	String Manipulation	Eng. Shaimaa Kouka
50 min	Data types and String manipulation tutorial	Eng. Shaimaa Kouka
20 min	If Statement	Eng. Lamees Dalbah
30 min	Loops	Eng. Lamees Dalbah
50 min	Conditional statement and iterative loops tutorial	Eng. Lamees Dalbah
30 min	Functions	Eng. Shaimaa Kouka
20 min	Exception Handling	Eng. Shaimaa Kouka
6 hrs	Final Python Project : voice recognition app	Eng. Shaimaa Kouka

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