

# Verified Certificate



**Joseph Santarcangelo**  
Data Scientist  
*IBM*

This is to certify that

**Abdelali Barir**

successfully completed and received a passing grade in

## **PY0101EN: Python Basics for Data Science**

a course of study offered by IBM, an online learning initiative of IBM.



**Verified Certificate**  
Issued April 9, 2022

**Valid Certificate ID**  
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