

PYT101: Fundamentals of Algorithms with Python



Overview

This course teaches the fundamentals of programming in Python 3. We will begin at the beginning with variables, conditionals loops, and get to some intermediate material like keyword parameters, list comprehensions, lambda expressions, and class inheritance. You will also learn ways to reason about program execution, so that it is no longer mysterious and you are able to debug programs when they don't work. This course is a good next step for you if you have completed Python course but want a more in-depth treatment of Python fundamentals and more practice, so that you can proceed with confidence to specializations like AI, Web Development and Data Science.



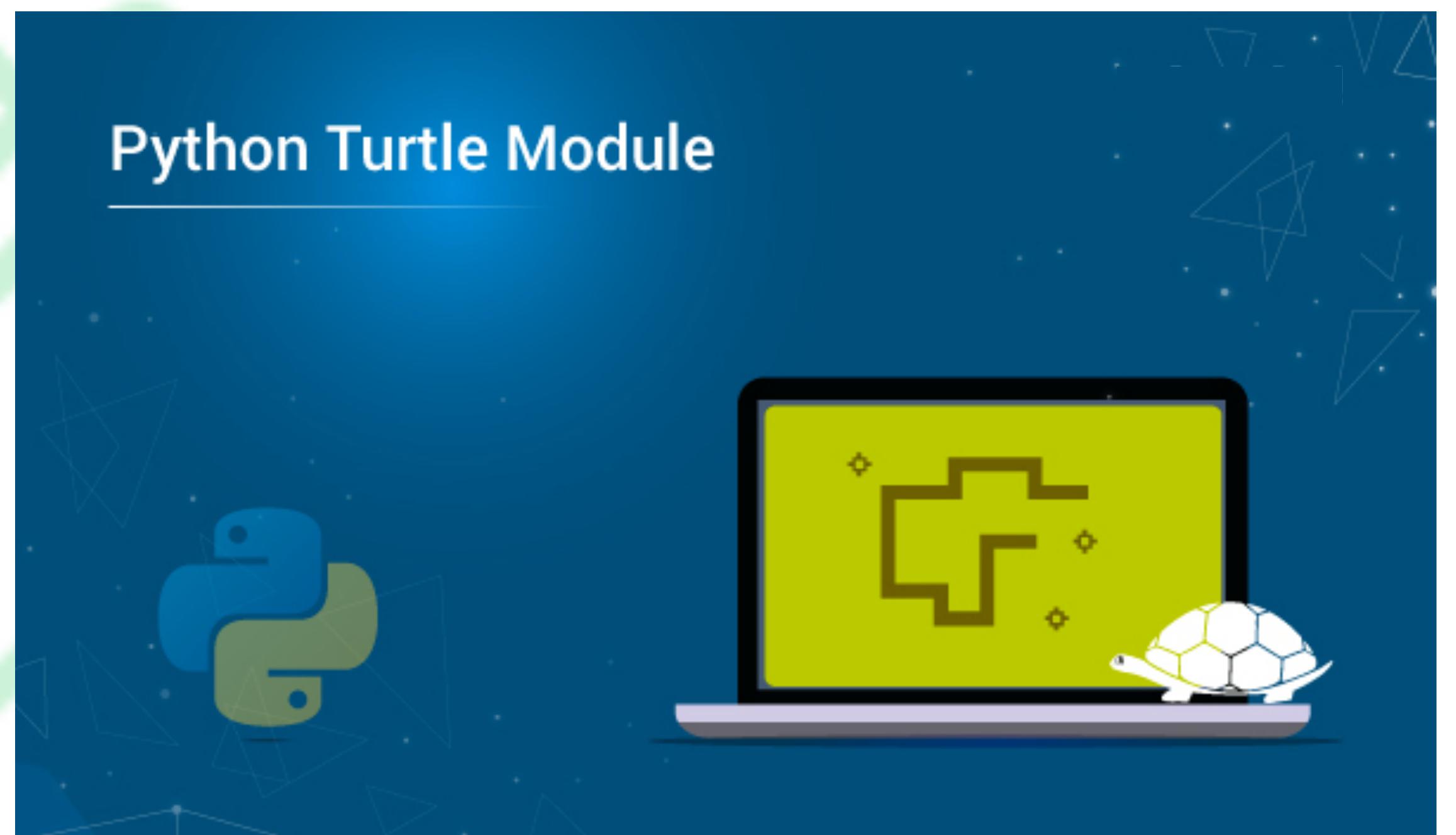
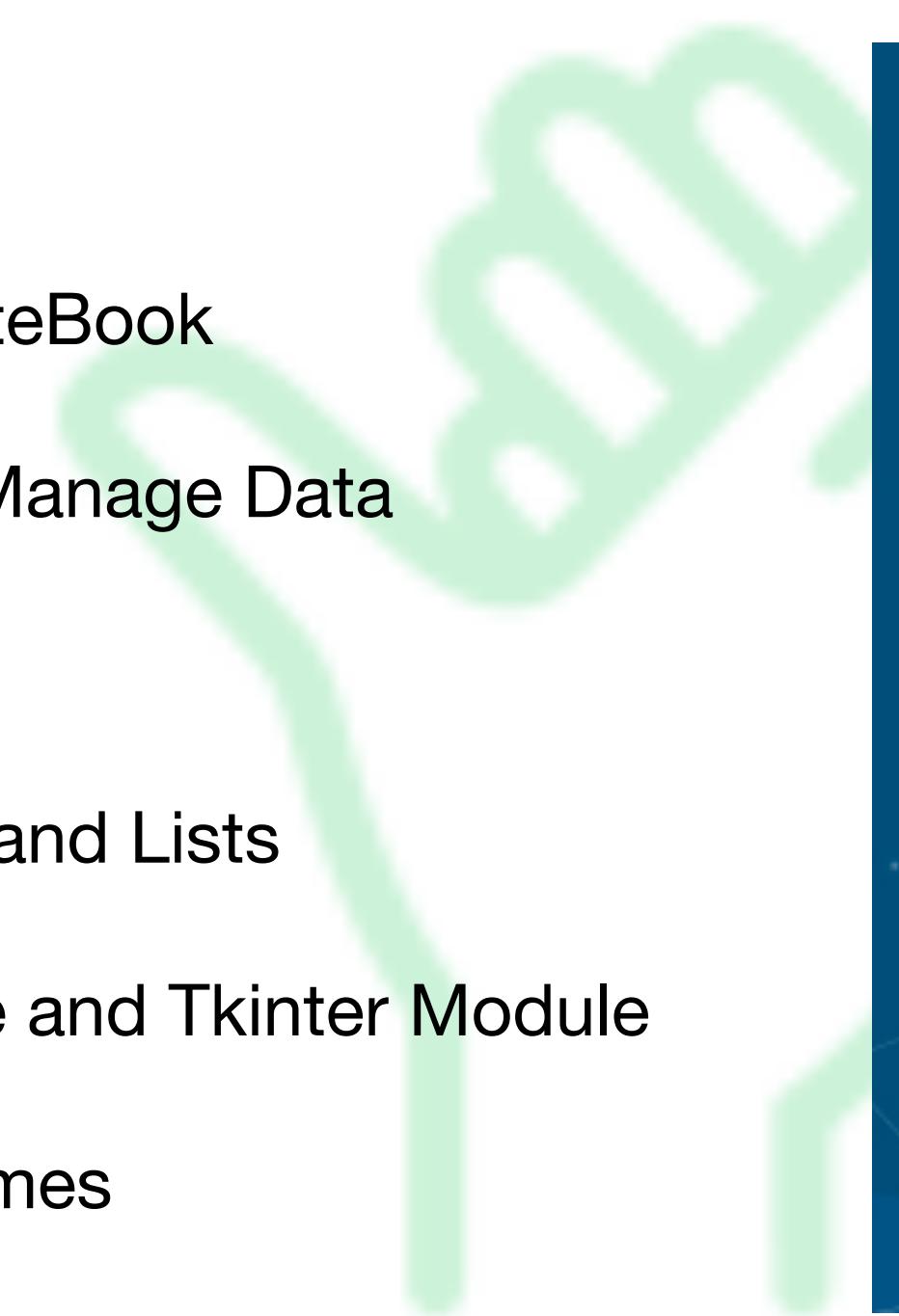
This Course

- Improve your knowledge regarding Python programming as well as game development which will enhance your programming abilities and critical thinking.
- Build your ability to analyse and innovate. You will work on different programs & games and learn how to diagnose and debug their errors. You will develop analytical skills of Simple Calculator project.
- Not only help you to learn the art of Python programming but as you perform different tasks related to GUI and it will eventually develop and improve your skillsets as an innovative programmer.
- Project based learning with a fun atmosphere & series of assessments will enhance your programming skills that are useful for professional development.



What You'll Learn

- Introduction to Python Programming
- Familiarity with PyCharm and Jupyter NoteBook
- Understanding of Variables in Python to Manage Data
- Using Control Flow and Logical Operator
- Importance of Python Loop, Dictionaries and Lists
- Understanding of Python GUI using Turtle and Tkinter Module
- Program 6 Distinct Projects Including Games



Who You'll Meet

- Highly qualified Programmers having vast theoretical knowledge and massive hands-on experience about Python Programming.
- Experts in Object Oriented Programming, Python and embedded systems programming.
- Experts in Artificial Intelligence, Deep Learning and Data Science.

Who You'll See

- An in-depth series of online/offline lectures, with high-quality graphics & detailed descriptions.
- 6+ interactive labs in which you will learn to design and develop Python Programming project from very basic to advance level.
- Interactive sessions with academic & industry experts, capturing cutting-edge perspectives.

The slide has a light gray background with a faint green Python logo watermark. The title 'Programming with Python' is centered in bold black font. Below the title is a yellow rectangular box containing the text 'level: novice'. In the center of the slide, there is a photograph of a man in a gray hoodie and a woman in a green top standing in front of a whiteboard. The whiteboard displays some text and small icons. The Python logo is in the top right corner of the slide.



Who Should You Enrol?

- To be a smart thinker
- To be a project leader
- To be a quick learner
- To be a team player
- To be a troubleshooter
- To enhance your vision as a Programmer



Course Instructor

Hamza Aslam
Electronics Engineer, NED-UET, Karachi

He is the Instructor for the course “Fundamentals of Algorithms with Python” offered by the RAAS institute of emerging technologies at THF. His areas of expertise are python programming and game development. Furthermore, he is experienced in design and development of innovative robots. His method of teaching is highly engaging which helps him convert innovative ideas and coding into a fun learning process, while also simplifying complex problems.

