

Course 07: Data Bahandi – Unearthing the Treasure of Databases

Chapter 1: Digital Treasure Maps

Learn the foundation of data storage systems and why databases matter.

Lesson 1: What is a Database?

Lesson 2: SQL vs NoSQL –

Lesson 3: Tables, Rows, Columns, and Keys

Chapter 2: Python Data Chests

Dive into Python's data handling capabilities.

Lesson 4: Lists, Tuples, Dictionaries

Lesson 5: Functions and Parameters in Data Tasks

Lesson 6: Basic Error Handling and Debugging

Course 08: Python sa Isla – The Serpent of Simplicity

Chapter 1: Python Island Orientation

Explore Python's syntax and fundamentals.

Lesson 1: Syntax, Indentation, and Comments

Lesson 2: Variables, Data Types, and Operators

Lesson 3: Input and Output Basics

Chapter 2: Slithering Through Logic

Develop core programming logic.

Lesson 4: Conditionals and Control Flow

Lesson 5: Loops (for, while)

Lesson 6: String Formatting and Manipulation

Course 09: Mga Numero at Alon Simulating the Future

Chapter 1: Predicting the Waves

Build foundations in quantitative modeling.

Lesson 1: Intro to Quantitative Methods

Lesson 2: Recap: NumPy, pandas, Matplotlib

Lesson 3: Descriptive Statistics & Probability

Chapter 2: Surfing with Python Models

Hands-on with modeling and simulation.

Lesson 4: Regression and Linear Models

Lesson 5: Simulation with Data and Python

Lesson 6: Final Mini Project: Model the Future

Course 10: Python sa Web – Building Bridges Across Islands

Chapter 1: Web Ferry Foundations

Handle real-world data using files and modules.

Lesson 1: File I/O in Python

Lesson 2: Working with CSV and JSON

Lesson 3: Python Modules and Imports

Chapter 2: Connecting the Archipelago

Start building Python-based web tools.

Lesson 4: Intro to Web Servers and Routing

Lesson 5: Templates and Forms

Lesson 6: REST APIs 101

Course 11: Data Baybayin – Designing the Backbone

Chapter 1: Writing the Script

Design smarter data structures.

Lesson 1: Data Modeling and ER Diagrams

Lesson 2: Normalization: 1NF, 2NF, 3NF

Lesson 3: Indexing and Performance

Chapter 2: Ancient Meets Modern (Integration)

Bridge database design with Python applications.

Lesson 4: Python + SQLite / MySQL

Lesson 5: Executing Queries via Python

Lesson 6: Capstone: Database-Driven App with Python