**Learning Objectives and Syllabus**

In this course, a learner will be able to:

* Explain a database and create an entity-relationship data model for a relational database.
* Compose SQL queries to insert, select, update, and delete data in a database.
* Use Django ORM to build object-oriented databases.
* Integrate Bootstrap into your Django template and build interactive web pages.

**Module 1: Introduction to Databases**

* Course Introduction Video
* How to Make the Most Out of this Course
* Module 1 Introduction and Learning Objectives
* Introduction to Data and Databases
* Relational Databases
* Non-relational Databases
* Database Concepts
* Hands-on Lab: Relational Data Concepts
* Lesson 1 Summary
* Practice Quiz: Introduction to Databases
* Graded Quiz: Introduction to Databases
* SELECT Statement
* Hands-on Lab: Simple SELECT Statements
* COUNT, DISTINCT, LIMIT
* INSERT Statement
* UPDATE and DELETE Statements
* Hands-on Lab: INSERT, UPDATE, and DELETE
* Lesson 2 Summary
* Module 1 Cheat Sheet: Basic SQL Statements
* Practice Quiz: Basic SQL Statements
* Graded Quiz: Basic SQL Statements
* (Optional) Bonus Lesson Overview
* (Optional) CREATE Table Statements
* (Optional) ALTER, DROP, and Truncate Table
* (Optional) Sorting Result Sets
* (Optional) Join Overview
* (Optional) Bonus Lesson Summary
* (Optional) Practice Quiz: Creating Tables, Sorting Results, and Joins

**Module 2: ORM: Bridging the Gap between the Real World and Relational Model**

* Module 2 Introduction and Learning Objectives
* Introduction to Django
* Object-Oriented Analysis and Design
* ORM Tools
* Object-Relational Mapping (ORM)
* Django Model
* Hands-on Lab: Create Your First Django Model
* Optional Lab: Create a Standalone Django ORM Project Template
* Quiz: ORM and Django Model
* Django Models CRUD
* Hands-on Lab: CRUD on Django Model Objects
* Related Objects
* Hands-on Lab: Query Spanning Relationships
* Module Summary
* Module 2 Cheat Sheet: ORM Bridging the Gap Between the Real World and Relational Model
* Practice Quiz: ORM Bridging the Gap Between the Real World and Relational Model
* Graded Quiz: ORM Bridging the Gap Between the Real World and Relational Model

**Module 3: Full-stack Django Development**

* Module Introduction and Learning Objectives
* Django Model-View-Template pattern
* Create a Django App
* Hands-on Lab: Create your first Django App
* Django Admin
* Hands-on Lab: Django Admin
* Django Views
* Django Template
* Hands-on Lab: Views and Templates
* Module Summary
* Module 3 Cheat Sheet: Full-stack Django Development
* Practice Quiz: Full-stack Django Development
* Graded Quiz: Full-stack Django Development

**Module 4: Consolidate and Deploy Your Django App**

* Module Introduction and Learning Objectives
* Class-based and Generic Class Views
* Hands-on Lab: Class-based and Generic Views
* Django Authentication System
* Hands-on Lab: User Signup and Sign in
* Bootstrap
* Hands-on Lab: Bootstrap Integration
* Manage Static Files
* Deploy Django Apps
* Module Summary
* Module 4 Cheat Sheet: Consolidate and Deploy Your Django App
* Practice Quiz: Consolidate and Deploy Your Django App
* Graded Quiz: Consolidate and Deploy Your Django App

**Final Exam and Project: Enhance Online Course App with New Features**

* Module Introduction and Learning Objectives
* Final Project Overview and Scenario
* Final Project: Add a New Assessment Feature to an Online Course App
* Peer Review
* Congratulations and Next Steps
* Thanks from the Course Team