Assessment

Module 13) Python - Fundamentals of python language

Module 14) Python - Collections, functions and Modules in Python

Case Overview

You are a trainee Python developer at **TechFix Solutions**, a fast-growing gadget repair center. Currently, the team handles repair job records using sticky notes and phone calls. This leads to **misplaced orders**, **confused billing**, and **delayed repairs**.

The company has requested a **Python-based console program**, named **FixTrack**, that allows staff to track device repair orders and generate simple bills — using only **core Python programming features**.

Core functionality	
Repair Order Booking	• Allows staff to record a new device repair order. • Captures customer name, device type, issue, and due date.
Billing	• Generates invoice once the repair is complete. • Calculates total based on parts replaced and repair fees. Applies tax and optional discount, then shows final amount.

Key Competencies Tested:

Python Concepts: Functions , Looping (for, while) , Collections (lists, dictionaries) , Input/output formatting

Practical Considerations:

- Temporary in-memory data handling
- Clean function-based structure
- Basic error/input validation
- Clear and formatted bill printing

Reflective Thinking:

- Can this be extended to store past repairs using file handling?
- Could future versions include barcode scanning or online repair tracking?
- How can parts inventory be integrated into the same system?