University of Warwick

Warwick Manufacturing Group (WMG)

e-Business Management

Digital Development with Python

Project 5: E-Business Event Management System

You must develop an E-Business Event Management System (EBEMS) using Python to manage handling and organising virtual events. This system is aimed at helping businesses manage online events like webinars, workshops, and conferences. The key objectives include offering valuable insights to businesses through its reporting feature, enabling them to analyse participant engagement, gather feedback, and measure the overall success of their events. This will help businesses strategise their future events and improve their content based on participant responses.

For this purpose, the system must contain the following key features:

1. **Key features:**
- Event Database: Implement an event database to store information the user provides, such as event ID and name, speaker name (if applicable), date, capacity, and attendees.
- Functionality: Create functions to perform operations on the events database, including:
   o Event creation and Management Functions:
      ▪ Allow users to create and modify event details, such as date, time, topic, speaker, capacity, etc.
      ▪ Enable users to register for events. The number of registrations should be tracked and limited based on capacity.
      ▪ Displaying the total loyalty points for each customer.
   o Report Mechanism Functions: Generate a report on event attendance, participant feedback, and other useful metrics.
   o Feedback Mechanism Functions: allow participants to provide post-event feedback to be used by event administrators when generating reports.

2. **Minimum requirements:**
- Python Functions: the project must rely on the use of functions to modularise code and enhance reusability.
- Dictionaries: utilise dictionaries as the primary data structure for representing the event database and storing information about name, date, capacity, attendees, etc.
- User Interface: create a simple text-based user interface to interact with the event management system.
- Error Handling: implement error-handling mechanisms to deal with invalid inputs.

3. **Submission guidelines:**
- Code Submission: Submit a Python script (*.py* or *.ipynb* file) containing the complete code for the E-Business Event Management System.

- Comments: write comments in your code explaining the logic behind each function and clearly specify the chunk of code that implements each project feature.
- Documentation: Write a brief documentation file with the structure of the event database and key decisions made during the development process.
- Testing: Provide a separate section in the documentation that outlines how the system was tested. Include input sample scenarios and expected outcomes.

4. **Evaluation Criteria:**
- Functionality (40%): All key features and minimum requirements must be implemented and should work as expected.
- Code Structure (20%): The code should be well-organized, with clear and modular functions. Comments should be added to explain the computational thinking.
- Use of Dictionaries (15%): Dictionaries should appropriately represent the customer database and store information about loyalty points and rewards.
- User Interface (15%): The user interface should be intuitive, allowing users to interact with the system easily.
- Error Handling (10%): The system should handle invalid inputs and potential errors.