Mini-Project

Company Name: Pythoneer Dynamics

Description

Welcome to Pythoneer Dynamics, where innovation slithers through every line of code we craft! We're a bustling hub of Python enthusiasts who believe in the charm of simplicity and the power of automation. At Pythoneer Dynamics, we specialize in developing seamless software solutions that resonate with efficiency and user-friendliness.

Our mission is to harness the capabilities of Python to revolutionize the way businesses operate, through custom-built applications that streamline processes and enhance productivity. From web applications to data analysis, artificial intelligence to system automation, we cover a spectrum of services that propel organizations towards digital triumph.

As we continue to grow, we're scouting for bright, python-savvy talent eager to tackle challenges and contribute to our portfolio of Pythonic masterpieces. We're not just a company; we're a dynamic playground for coders who dream in indentation and breathe life into possibilities with each stroke of the keyboard.

Recruitment Message

Are you ready to join a team that values code quality as much as a well-executed Python pun? Do you thrive in environments where creativity intertwines with technical prowess? If you've nodded affirmatively, then Pythoneer Dynamics is your launchpad to an exhilarating coding career!

We're on the lookout for a budding developer to take on our latest project, which promises to be as exciting as it is challenging. As our new recruit, you'll be tasked with the design and development of a project that will not only test your coding mettle but also showcase your problem-solving flair. Your code will be the backbone of solutions that make a real-world impact.

So, if you've got a knack for Python and a passion for crafting code that makes a difference, we can't wait to welcome you aboard. Let's code, create, and celebrate the Python way!

Assessed Laboratory Work

Complete your mini-project

This assessment amounts to **50%** of the module, marked out of 100.

Due date: **Friday 15th December 2023 23:59**

Mark Scheme

1. Execution (30 Marks)
    - Correct Functioning (20 marks): The program meets all functional requirements as specified in the project brief.
        - All requirements met: 16-20 marks
        - Most requirements met: 11-15 marks
        - Some requirements met with critical features missing: 6-10 marks
        - Few requirements met: 0-5 marks
    - Error Handling (5 marks): The program handles errors gracefully and provides useful feedback to the user.
        - Comprehensive error handling: 4-5 marks
        - Basic error handling: 2-3 marks
        - Minimal error handling: 1 mark
        - No error handling: 0 marks
    - Efficiency (5 marks): The program runs efficiently, without unnecessary or redundant processes.
        - Highly efficient: 4-5 marks
        - Moderately efficient: 2-3 marks
        - Inefficient: 1 mark
        - Very inefficient or not executing: 0 marks
2. Pseudo-code (20 Marks)
    - Clarity (10 marks): The pseudo-code is clear, logical, and easy to follow.
    - Completeness (10 marks): The pseudo-code accurately represents the program's functionality and flow from start to finish.
3. Code Quality (25 Marks)
    - Readability (10 marks): The code is well-formatted, with clear naming conventions and logical structuring.
    - Commenting (5 marks): Code contains meaningful comments and docstrings that effectively explain the logic and usage of code sections.

- Adherence to Standards (5 marks): The code follows prescribed style guidelines and best practices.
- Modularity (5 marks): The code is appropriately structured into functions or classes.

4. Documentation (10 Marks)
    - README File (5 marks): The README is comprehensive, providing clear instructions on setup, dependencies, and how to use the program.
    - Code Documentation (5 marks): Docstrings are present for modules, classes, and functions, providing essential information on their functionality.
5. Design and User Experience (15 Marks)
    - User Interface (7 marks): The user interface is intuitive, user-friendly, and provides clear instructions for interaction.
    - System Design (8 marks): The design of the system is thoughtful, demonstrating good software architecture and design principles.

Plagiarism & Unfair Practice

Plagiarised work will be given a mark of zero. Remember when you submit you agree to the standard agreement:

This piece of work is a result of my own work except where it is a group assignment for which approved collaboration has been granted. Material from the work of others (from a book, a journal or the Web) used in this assignment has been acknowledged and quotations and paraphrasing suitably indicated. I appreciate that to imply that such work is mine, could lead to a nil mark, failing the module or being excluded from the University. I also testify that no substantial part of this work has been previously submitted for assessment.

Late Submission & Extensions

Work submitted within one week of the stated deadline will be marked but the mark will be capped at 50%. A mark of 0% will be awarded for any work submitted 1 week after the deadline. Extensions must be applied for using the Request Centre in MyBangor. They must be approved prior to the original deadline.

Acceptable reasons for submitting work late include: Serious personal illness with a doctor's certificate (a self-certified medical note should not be accepted); the death of a relative or close friend; serious family problems such as divorce, separation and eviction. Examples of unacceptable reasons for failing to submit work on time include: having exams; having other work to do; not having access to a computer; having computer related problems; being on holiday; not being able to find information about a subject.

Feedback

The formal feedback for this assessment will be available post-assessment. Each submission will be provided with comments in their document made available through Blackboard. To access this, see the comments section of your assignment submission. The assessors will attempt to return comments within 2 weeks of submission, however will keep you informed if it needs to extend to the 4 weeks allowed by the University.