**Exam 3: AI Python Application Assignment**

**Assignment Overview:**

For this assignment, you will create your own AI-based Python application using functions and concepts learned in this course. The application must serve a real-world purpose and demonstrate your understanding of Python programming.

**Requirements:**

* Your AI application must be a real-world use case.
* Implement at least **three functions** that you recall within the application.
* Use only Python for coding (no external AI libraries, unless approved by the instructor).
* Provide well-documented code, including comments explaining the functions.
* Ensure the program runs successfully and meets the intended AI objective.

**Possible AI Application Ideas:**

1. **Chatbot Simulation** – A basic chatbot that responds to user input using predefined responses and logical decision-making.
2. **Spam Detection** – A simple program that classifies text as spam or not based on keyword filtering.
3. **Sentiment Analysis** – A script that analyzes text input and determines if it’s positive, negative, or neutral based on predefined keywords.
4. **Automated Resume Screening** – A function that scans a text file resume and checks for specific skills or keywords.
5. **AI-Powered To-Do List** – A smart to-do list that prioritizes tasks based on urgency levels given by the user.

**Rubric:**

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| **Criteria** | **Excellent (10)** | **Good (7-9)** | **Needs Improvement (4-6)** | **Poor (0-3)** |
| **Functionality** | The AI application works flawlessly and meets all requirements. | The application works with minor issues. | The application is incomplete or has major bugs. | The application does not run or lacks functionality. |
| **Use of Functions** | At least 3 functions are used effectively. | 2 functions are used effectively. | 1 function is used, or functions are not utilized properly. | No functions are used. |
| **Code Documentation** | Code is well-documented with clear comments. | Some comments are present but not consistent. | Few comments, making the code hard to understand. | No comments included. |
| **Real-World Relevance** | The AI application addresses a clear real-world problem. | Somewhat relevant to a real-world application. | Minimal relevance to real-world problems. | Not relevant or practical. |
| **Code Readability & Structure** | Code is clean, well-organized, and follows best practices. | Code is readable but could be better structured. | Code is messy and difficult to follow. | Code is unstructured and disorganized. |

**Total Score: /50**

**Submission Guidelines:**

* Submit your Python script (.py file) via the designated learning management system.
* Include a brief explanation (1-2 paragraphs) of how your AI application works.