AGI Coding Mini-Challenge

The Problem

Create a program (in any language) that performs an “inflationary” operation against strings.

The input:

- String: text to manipulate.

The output:

- Find numbers in the string and increase them by one; return the new string.

For example:

- "Any**one** up for **ten**nis?" returns "Any**two** up for **eleven**nis?"

Using AI?

There are no constraints on using AI. You may or may not use any AI tool – it is your choice.

Whether you use AI or not has no impact on your evaluation.

Time Constraint

- **Do not spend more than 45 minutes on this challege.**
- If you are not finished after 45 minutes just send us what you currently have. This is a difficult problem that may need more time to implement completely.

What to Submit

Please submit your completed take-home project as a public GitHub repository. The repository should include all source code, setup instructions, and any documentation you feel is relevant for reviewing your work (e.g., a README explaining design decisions, tradeoffs, and how to run the project locally). If using AI, include prompts, markdown files, everything submitted to AI.

Once your repository is ready, email a link to the GitHub repo to dcherkassky@advantagegroup.com. No additional attachments are required; we will evaluate your submission directly from the repository.

What to Expect During the Interview

During the interview, you will need to explain:

- If you used an AI tool:
    - Why did you think the AI tool would help you?
    - Describe your process of working with the AI tool.
    - Do you think the generated algorithm is a good one? What assumptions did it make, what limitations are there?
    - What are the next steps to improve the program (if you had more time)?
- If you did not use an AI tool:
    - Why did you think an AI tool would not be helpful in this case?
    - Describe your thinking process for coming up with your algorithm
    - Does your algorithm have any assumptions or shortcomings?
    - What are the next steps to improve the program (if you had more time)?