
** Tool Ideas**

1. Word Counter Tool

Goal: Count the number of words in a sentence. **Command Example:**

```
count I am learning LangChain with Mistral.
```

Expected Output:

```
Agent: Your sentence has 6 words.
```

 Purpose: helps learners work with string manipulation and user input parsing.

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2. Reverse Text Tool

Goal: Reverse the given sentence or word order. **Command Example:**

```
reverse LangChain is fun to learn
```

Expected Output:

```
Agent: learn to fun is LangChain
```

 Purpose: simple string transformation practice.

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3. Vocabulary Helper Tool

Goal: Give a synonym (or short definition) for a word using the LLM. **Command Example:**

```
define curious
```

Expected Output:

```
Agent: Curious means eager to know or learn something.
```

 Purpose: encourages using the LLM to enhance basic dictionary-like behavior.

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4. Uppercase / Lowercase Tool

Goal: Convert text into uppercase or lowercase. **Command Examples:**

```
upper I like learning AI.
lower THIS IS AMAZING!
```

Expected Output:

```
Agent: I LIKE LEARNING AI.
Agent: this is amazing!
```

 Purpose: reinforces basic Python string methods and pattern matching.

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5. Word Repeater Tool

Goal: Repeat a word a specified number of times. **Command Example:**

```
repeat hello 3
```

Expected Output:

```
Agent: hello hello hello
```

 Purpose: great beginner exercise in parsing numeric arguments from text.

Capstone Theme: “Mini Language Utility Bot”

Goal: Build a small text-based bot using 3–5 of the above tools. It should:

- Accept commands like `count`, `reverse`, `define`, `upper`, `repeat`.
- Respond clearly in plain text.
- Use **Mistral (OpenRouter)** for language-based responses (`define`, fallback chat).
- Use **basic string logic** for others (no API calls or databases).

Stretch Goal (Optional)

Add a command:

```
history
```

which prints all previous inputs and outputs stored using **ConversationBufferMemory**.
