

Assignment: Build a Creative Local LLM Agent Using Python

3.11

Overview

This assignment challenges you to design and build a fully local Large Language Model (LLM) agent using **Python 3.11** and the following PyPI packages:

- `noahs-local-ollama-chat-agent`
- `noahs-tts`
- `noahs-local-speech-recognition`

Each library is optimized for Python 3.11, and you are encouraged to use this version for maximum compatibility and performance.

Objective

Your goal is to create a **specialized local LLM agent** of your choosing. This assignment focuses on **creativity** rather than technical depth. You are encouraged to explore, experiment, and extend the capabilities of the provided libraries and expand or improve upon them as you see fit.

Requirements

1. Choose or design a local LLM model

Select any local model supported by your environment (e.g., via Ollama).

Your agent may serve any purpose: educational, entertainment, productivity, automation, etc.

2. Use the provided Python libraries

Integrate the following:

- `noahs-local-ollama-chat-agent` – for local LLM interaction
- `noahs-tts` – for generating spoken responses
- `noahs-local-speech-recognition` – for handling voice input

Using all three is recommended but not mandatory if justified in your design.

3. Creativity encouraged

Ideas for enhancements include:

- Custom agent personalities
- Background processes or task automation
- Audio-driven dialogue

- Memory systems
- Voice-controlled utilities
- Interactive storytelling or game logic

You may also modify or extend the libraries themselves.

4. Deliverables

Submit:

1. A working Python script or package implementing your agent organized via GitHub
2. A short prepared demo of your agent and its functionality.

Evaluation Criteria

You will be evaluated mainly on:

- Creativity and originality
- Overall design clarity
- Integration or expansion of the provided libraries
- Functional demonstration of your agent

Notes

- Use **Python 3.11** for best compatibility with all provided packages.
- You may use any additional libraries or tools as you see fit.