Bugs Found and How They Were Fixed

Bugs Found:
  - Syntax Errors and Imports :
  - Missing closing parentheses and braces (main.py Crew initialization).
  - Wrong import path for `Agent` (agents.py).
  - Circular reference in LLM initialization (`llm = llm`).
  - Missing or incorrect parameter names (`tool` vs `tools`).

Code Structure Errors :
  - Function name conflicts causing ambiguous usage.
  - Use of async methods without proper decorators.
  - Missing imports, such as for the `Pdf` class in tools.py.

Logic and Prompt Issues :
  - Unprofessional, vague, and inefficient AI agent backstories and goals.
  - Task prompts that were unstructured and contained unprofessional language.
  - Improper tool instantiation and usage.

Dependency and Configuration :
  - Missing critical dependencies in requirements.txt (e.g., `uvicorn`, `python-multipart`).
  - Typos in documentation (`requirement.txt` instead of `requirements.txt`).

How They Were Fixed :
- Added missing syntax (parentheses, braces).
- Corrected imports to proper CrewAI and external library paths.
- Initialized LLM properly using `ChatOpenAI`.
- Replaced `tool` parameter with `tools` (plural) and used instantiated tool objects.
- Renamed conflicting function names for clarity.
- Converted async methods to `@staticmethod`s with proper signatures.
- Added error handling and fallback in PDF reading logic.
- Rewrote AI agent prompts and backstories to professional and realistic tone.
- Structured task descriptions with clear objectives and expected formatted outputs.
- Added missing dependencies and fixed typos in requirements and documentation.
- Provided comprehensive setup, usage, and API documentation.