Assignment 3

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Repo link:

https://github.com/ofrik2/llm-turing-translation

Self-Assessment

Students: Ofri Kutchinsky , Lior Abuhav
Project: Round-Trip Translation Turing Machine with LLM Agents
Self-assigned grade: 94/100

Self-Assessment Statement

In this project, we implemented a Turing-machine-style pipeline composed of three stateless LLM agents, each executed via the Claude CLI and communicating exclusively through files. Each agent performs a single, well-defined transformation step: English→Spanish, Spanish→Hebrew, and Hebrew→English. Python was used only for the embedding and evaluation components, fully respecting the course constraints. This aligns with the definition of "building blocks" and modular design described in the guide.

What we believe we did well:

We placed strong emphasis on clarity, modularity, and reproducibility. The structure of the repository is clean and conventional, with clear separation between agents/, data/, embeddings/, and experiment outputs, consistent with the rubric requirements for Project Structure & Code Quality (3.2.3). The README is comprehensive and includes setup instructions, agent explanations, pipeline description, and troubleshooting notes, meeting the criteria for documentation quality (3.2.1–3.2.2). The translation agents themselves are strictly minimal, stateless, and deterministic, matching the course's intent that each agent act like a Turing Machine "state transition." The experiment for typo percentage vs. semantic drift is methodical: we prepared inputs with 0–50% noise, executed the full pipeline, generated a CSV, plotted the results, and analyzed the relationship. This satisfies the expectations of Research & Analysis (3.2.6). We also added a full PRD that defines scope, objectives, requirements, acceptance criteria, and risks. Together with the README, the documentation is complete and reflects strong architectural thinking.

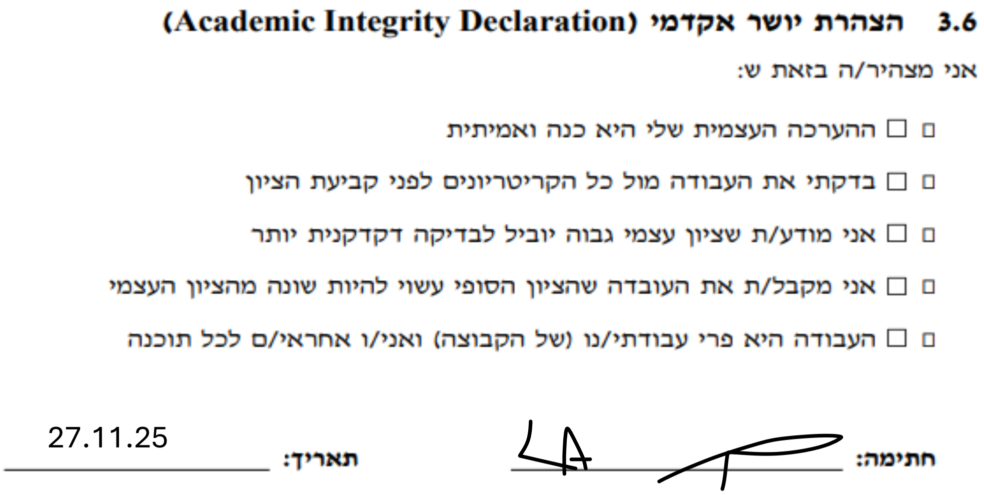
Challenges and what we learned:

The most difficult part was configuring the Claude CLI correctly — particularly handling system prompts, rate limits, and preventing meta-responses from the agents. We learned how sensitive LLMs can be to prompt design, how to enforce determinism in a nondeterministic model, and how the course's concepts of "agents," "skills," and file-based orchestration map to real implementations. The project strengthened our understanding of modular decomposition and reproducible pipelines.

What could be improved:
We could expand automated testing, add validation checks for malformed inputs, and optionally explore concurrency or performance improvements, although these were not required for the assignment.

Overall, we believe the project demonstrates solid understanding, careful execution, and thoughtful analysis.

Category	**Weight**	**My Score**	**Weighted Score**
Project Documentation (PRD & Architecture)	20%	95	19
README & Code Documentation	15%	95	14.25
Project Structure & Code Organization	15%	94	14.1
Configuration & Security	15%	86	12.9
Testing & QA	15%	75	11.25
Research, Analysis & Results	15%	90	13.5
Use of Course Concepts & Terminology	10%	93	9.3
Total	**100%**		**94.3**



3.6 הצהרת יושר אקדמי (Academic Integrity Declaration)

אני מצהיר/ה בזאת ש:

□ ☐ ההערכה העצמית שלי היא כנה ואמיתית

□ ☐ בדקתי את העבודה מול כל הקריטריונים לפני קביעת הציון

□ ☐ אני מודע/ת שציון עצמי גבוה יוביל לבדיקה דקדקנית יותר

□ ☐ אני מקבל/ת את העובדה שהציון הסופי עשוי להיות שונה מהציון העצמי

□ ☐ העבודה היא פרי עבודתי/נו (של הקבוצה) ואני/ו אחראי/ם לכל תוכנה

חתימה: ____________ תאריך: 27.11.25

Grade and Comments: