**Effort vs. Duration Report: Joke Generating LLM**

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**1. Project Overview**

This report presents the Effort vs. Duration analysis for the development of a Joke Generation System powered by Large Language Models (LLMs). The system is designed to generate short humorous texts or jokes in response to user-provided prompts using a transformer-based machine learning architecture.

As the project is to be carried out individually, all effort values reflect single-person work measured in person-hours.

**2. Task Breakdown**

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| --- | --- | --- | --- | --- |
| **Task No** | **Task Description** | **Effort (Person-Hourt)** | **Duration (Days)** | **Notes** |
| 1 | Project Planning & Research | 15 | 14 | Research on transformers, LLMs, and joke generation techniques. Planning the project roadmap. |
| 2 | Dataset Collection & Preprocessing | 13 | 7 | Searching, cleaning, and formatting joke datasets suitable for model training. |
| 3 | Model Architecture Design | 5 | 5 | Designing the architecture of the transformer-based model for the specific task. |
| 4 | Environment Setup & Tooling | 7 | 2 | Setting up development environment, dependencies, and tools for model training. |
| 5 | Model Training & Tuning | 31 | 28 | Initial training, hyperparameter tuning, and handling overfitting or underfitting. |
| 6 | Prompt Engineering | 9 | 3 | Designing and testing different prompt structures to improve joke generation quality. |
| 7 | Evaluation & Testing | 11 | 3 | Testing the model’s outputs, performing quality evaluation, and iterating improvements. |
| 8 | Final Optimization & Packaging | 9 | 2 | Final adjustments, cleaning code, and preparing the deliverable. |
| 9 | Report & Presentation Preparation | 10 | 3 | Writing project report and preparing the presentation slides. |

**3. Effort vs. Duration Summary**

|  |  |
| --- | --- |
| **Total Effort** | **Total Duration** |
| 110 Person-Hours | 67 Calendar Days |

**4. Additional Notes**

* The project is planned with 1–2 hours of work per day, taking into account students' other academic commitments.
* Model training time and required compute resources were considered when estimating durations.
* The schedule allows some flexibility for unexpected delays or additional tuning needs.