

Faculty of Engineering and Natural
Sciences

Turkish Joke Generator

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Project Goals Document

Turkish Joke Generator

Project Duration: February 27, 2025 – April 24, 2025

Team Members:

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1. Introduction

The Turkish Joke Generator project aims to develop an innovative web application that leverages a fine-tuned GPT-2 model to generate culturally rich Turkish jokes. The project is executed as part of our Software Project Management course and follows agile methodologies, particularly Scrum. The goal is to create a user-friendly and engaging platform that delivers a quick, enjoyable burst of humor while showcasing our technical and project management skills.

2. Project Objectives

The primary objectives of this project are as follows:

- **Develop an Interactive Web Application:** Create a responsive, intuitive interface where users can generate and view random Turkish jokes at the click of a button.

- **Leverage Advanced AI Technology:** Utilize the GPT-2 model, trained on a curated dataset of 10,000 Turkish jokes, to produce contextually and culturally appropriate humor.
- **Integrate Robust Back-End and Front-End Systems:** Ensure seamless integration between the Flask-based backend API and the modern front-end built with HTML, CSS, and JavaScript.
- **Achieve High Performance and Scalability:** Design the system to generate jokes in less than 3 seconds per request and support at least 50 concurrent users.
- **Demonstrate Agile Project Management:** Apply agile methodologies and effective project management tools (GitHub, Trello, WhatsApp) to track progress, manage risks, and deliver iterative improvements every two weeks.
- **Provide User-Centric Experience:** Focus on usability and accessibility, ensuring that the platform is engaging and easy to use for a diverse audience interested in Turkish cultural humor.

3. Key Goals

3.1 User Experience & Engagement

- **Goal:** Deliver a smooth, interactive, and visually appealing user interface.
- **Details:**
 - Ensure the design is responsive for both desktop and mobile devices.
 - Incorporate clear navigation and real-time feedback (e.g., loading indicators, error messages).
 - Achieve high user satisfaction, targeting positive feedback from at least 80% of test users.

3.2 Technical Excellence

- **Goal:** Build a technically robust system integrating AI with web technologies.
- **Details:**
 - Successfully fine-tune the GPT-2 model using a dataset of 10,000 jokes.
 - Integrate the model with a Flask API to ensure reliable joke generation.
 - Achieve performance benchmarks (e.g., joke generation in under 3 seconds, support for 50+ concurrent requests).

3.3 Project Management & Delivery

- **Goal:** Complete the project within the defined timeline and resource constraints.
- **Details:**
 - Follow a well-structured agile process with bi-weekly sprint reviews.
 - Use GitHub for version control and Trello for task management to maintain clear accountability.
 - Meet all key milestones, with the final deliverable completed by April 24, 2025.

3.4 Educational and Professional Development

- **Goal:** Demonstrate proficiency in software project management and modern web development practices.

- **Details:**

- Apply agile methodologies, Scrum practices, and effective risk management strategies.
- Document the process thoroughly to showcase learning outcomes and facilitate future project iterations.
- Align project deliverables with the academic requirements and industry standards for project management.

4. Success Criteria

For the project to be considered a success, the following criteria must be met:

- **Functionality:** The web application must generate culturally relevant Turkish jokes accurately and efficiently.
- **Performance:** Joke generation should occur in less than 3 seconds with stable performance under load.
- **Usability:** The platform must provide an intuitive user experience with a responsive design.
- **Timely Delivery:** All project milestones are met within the 8-week period, culminating in the final delivery by April 24, 2025.
- **Feedback:** Positive user feedback and successful sprint demos that reflect continuous improvement and effective risk management.
- **Documentation:** Complete and detailed documentation covering technical specifications, user guides, and project management processes.

5. Milestones & Timeline

Key milestones for the project include:

- **Project Kick-Off (Weeks 1–2):**
 - Establish project repository, finalize dataset, and plan sprint activities.

- **Model Training & Initial Testing (Week 3):**
 - Fine-tune GPT-2 on Google Colab and conduct preliminary evaluations.
- **API & Backend Integration (Week 4):**
 - Develop and test the Flask API for model integration.
- **Web Application Development (Week 5):**
 - Create a responsive UI and integrate it with the backend.
- **Integration Testing & Refinement (Week 6):**
 - Perform thorough testing, optimize UI/UX, and debug issues.
- **User Testing & Sprint Demo (Week 7):**
 - Collect user feedback and make iterative improvements.
- **Final Testing & Project Delivery (Week 8):**
 - Complete final testing, documentation, and project handover.

6. Conclusion

The Turkish Joke Generator project is designed to blend cultural relevance with technical innovation, providing an engaging, accessible, and efficient platform for generating Turkish humor. Our clear project goals, aligned with agile project management principles and industry best practices, set the stage for a successful project delivery that meets both academic and professional standards. By achieving our technical, user experience, and project management objectives within the designated timeline, we aim to not only fulfill the requirements of our Software Project Management course but also to create a memorable and fun product that celebrates Turkish cultural humor.

7. References

- **Schwalbe, K. (2015).** *Information Technology Project Management*. Cengage Learning.
Provides foundational concepts on project management practices and risk mitigation strategies.
- **Schwaber, K., & Sutherland, J. (2020).** *The Scrum Guide*.
Offers comprehensive guidelines on implementing Scrum methodology effectively for agile project management.
- **Flask Official Documentation.**
Retrieved from <https://flask.palletsprojects.com/>
Essential for understanding the framework used in the backend development of the web application.
- **GitHub Guides.**
Retrieved from <https://guides.github.com/>
Provides best practices for version control and collaborative software development.
- **Google Colab Documentation.**
Retrieved from <https://colab.research.google.com/notebooks/intro.ipynb>
Offers insights into using Google Colab for model training and collaborative coding.
- **Additional Agile and Project Management Resources.**
Various online resources and academic materials supporting agile methodology and iterative project planning strategies.