PROJECT PLAN

EFTELING AI STORYTELLING

Partnership with Livewall

Eindhoven

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1. Project Assignment

1.1 Context

Mach8 is a company that focuses on the application of Gen-AI to create scalable, personalised, and simplified digital contents. This company is part of Livewall, a digital agency that specialises in the development of apps, games, and digital contents. In Livewall, Mach8 mainly specialises in product development that requires Gen-AI. The given assignment revolves around Gen-AI, specifically the application of Gen-AI in online storytelling. The task was to make a digital product that generates stories with AI based on user input, with a theme that revolves around the Dutch theme park: Efteling.

1.2 Goal of the project

The goal of this project is to develop a Gen-AI implementing application to create an engaging and interactive storytelling experience for children of ages 6 to 10 years old. Taking into account the fact of the decreasing literacy level of children, aged 15 and under, in the Netherlands, this product will also be developed as a tool that will bring back the children's desire for reading. At the same time, this product could also contribute to a positive marketing for Efteling, and the specific Sprookjesbos area in the park.

1.3 The assignment (Magda)

***Assigned Question**:*
"How can we create engaging and personalised stories using AI technology?"

The assignment is designed for the Efteling theme park in Tilburg, The Netherlands and more specifically for the Sprookjesbos (The fairytale forest) area. The goal is to leverage the AI technology in order to create not only personalised but also educational and fostering imagination stories.

Client requirements:

1. *Usage of GenAI for text, image, video and audio generation*
2. *Interactive storytelling:*
    - the user must be able to change the narrative of the story
3. *Metrics of success:*
    - Measuring engagement of the final deliverable by examining completion and abandonment rates, sessions per user recorded

1.4 Scope

Deliverables:	**Non-deliverables:**
1 Project plan	1 Fully functioning app with complete features
2 User test report	
3 Personas	
4 Designs	

5 Progressive web application	
6 Project report	

- Moscow Chart (for the app specifically)

 Must have	Should have	Could have	 Won't have
*AI generated story with user input allowed *Text generation AI feature *Photo generation AI feature	*Audio generation AI feature	*Video generation AI feature	* Fully functioning app with complete features

1.5 Conditions

Technology Stack:

- The development of the application requires the use of Gen-AI technologies or AI models from Replicate. Such examples are natural language processing (NLP) models (e.g., GPT-based models) that can generate engaging, child-friendly content.
- The environment and language of the application coding might include the use of tools like Node JS and React.
- The application should also incorporate user-friendly interfaces, ensuring ease of use for children. This may require additional front-end development tools (e.g., React, Flutter) that integrate with the Gen-AI engine.

Integration with Efteling's Digital Ecosystem:

- The product may need to be integrated into Efteling's existing digital platforms, such as their website, mobile apps, or marketing channels.

AI Model Training and Customization:

- The Gen-AI models might need some adjusting to align with the specific themes and characters of Efteling's Sprookjesbos. This may involve training or fine-tuning our chosen AI model on relevant datasets, including Dutch-language content and fairy-tale elements.

Organisational Preconditions:

- **Collaboration with Livewall**:
    - Given that Mach8 is part of Livewall, clear communication and collaboration between the Mach8 team and other divisions within Livewall (example: app development or game design) are essential. Any organisational processes set by LiveWall, including workflows, team responsibilities, and deadlines.

Regulatory or Legal Preconditions:

- **Data Privacy and Consent**:
    - The product will involve collecting user input, particularly from children, which raises legal considerations around data privacy. Special attention should be given to how data is collected, processed, and stored, ensuring that parents or guardians give explicit consent.

Environmental Preconditions:

- **User Accessibility and Engagement**:
    - The target audience for the product is children aged 6-10 years old, so the application must be designed with accessibility in mind, like simple navigation, child-friendly interfaces, and intuitive controls. Critical attention should be paid to making the AI-generated content readable and appropriate for children's literacy levels.
- **Societal Impact**:
    - A critical precondition is the project's potential societal impact. Since this project is aimed at improving literacy rates among young children, careful consideration must be given to how the AI-generated stories foster an interest in reading. The content should be engaging enough to spark children's curiosity and improve reading habits, particularly in light of declining literacy rates.

1.6 Research questions (Sumaya)

Research questions:

2. Approach and Planning

2.1 Approach

For the execution of this project, the Double Diamond methodology will be followed. The project process is divided into five stages: **Briefing, Discover, Define, Develop**, and **Deliver**. This approach emphasises both divergent and convergent thinking throughout the design process.

In parallel, the Scrum methodology will be applied within each phase of the Double Diamond. This will ensure regular, iterative testing and feedback at key intervals, helping to solidify findings and meet research objectives effectively. By combining these methodologies, the project will balance creative exploration with structured development, ensuring thorough testing and validation at every step.

2.2 Research methods

As the team will be adopting the Double Diamond method throughout the work process of the project, each phase will use the corresponding CMD research methods. The detail and description of which methods and how they will be used are provided below:

Project Phase	Research method	Description
Discover	Brainstorming sessions Research on existing apps of the Efteling Research on the targeted audience	By applying different types of research and methodologies, examination of already existing apps in order to understand if we can integrate our concept to one of these or externally link it.
Define	Focus group Customer journey Expert Interview Persona	Setting up a focus group of children alighning with our target (6-10 years old) to understand what they enjoy and their preferences.
Develop	Ideation, Sketching, Prototyping Benchmark Focus group Participant observation Co-reflection	Beginning of design phase, ideation and research on already existing similar AI concepts, ideation and iteration on each concept by involving both target group and stakeholders
Deliver	A/B testing Online analytics Usability test Pitch	Testing final features and reaching to an agreement, setting up engagement metrics measurements, delivering and pitching final concept

2.3 Learning outcomes

The process and result of this project will contribute to several learning outcomes that the team has to prove proficient in this semester. The details and information of how the learning outcomes will be achieved by the works in this project is described below:

LO1 - Conceptualize, design, and develop interactive media products
We will conceptualise and design an interactive storytelling app using Gen-AI, specifically tailored for children aged 6-10. By applying user-centred design principles and visual techniques, we aim to create an engaging product that encourages reading and aligns with the needs of our young target audience, while also promoting the Efteling Sprookjesbos area.

LO2 - Transferable production
We will keep track of our code using Git, which helps us organise our work. This way, everyone on the team can contribute and see each other's changes. It will make it easier for us to work together and share technical details, showing that we can function well as a team.

LO3 - Creative iterations
Throughout the project, we will show how our app evolves. We will collect feedback from kids and use it to improve our design and features, sharing the steps we take in our creative process.

LO4 - Professional standards
We will use a combination of the Double Diamond and Scrum methodologies to structure our project. By involving stakeholders such as Mach8 (Bas), Efteling, Livewall, and user focus groups, we will ensure our project goals are met professionally. We will also think about ethical and cultural aspects when creating content for children.

LO5 - Personal leadership:
As a team, we will reflect on our individual strengths and weaknesses, supporting each other in both technical and personal growth. We will take ownership of our learning and development, making decisions that align with our core values and promote our collective progress throughout the project.

2.4 Breakdown of the project (Gantt chart screenshot) (Ellyshia)

This project is broken down into five sprints, where each sprint is focused on one phase in the double diamond. Below is an elaboration:

a. *Sprint 1 - Briefing phase*
b. *Sprint 2 - Discover phase*
c. *Sprint 3 - Define phase*
d. *Sprint 4 - Develop phase*
e. *Final sprint - Deliver phase*

A complete breakdown of the project, in the form of a Gantt chart, can be accessed through the provided link:
https://aurorastudiocreative.atlassian.net/jira/software/projects/AIST/boards/2/timeline?shared=&atlOrigin=eyJpIjoiZmQ4YzQ0ZDY2OTQ0NDEyMmJjZjA5YzllYTJiYmE3MTgiLCJwIjoiaiJ9

2.5 Time plan (Ellyshia)

Phasing	Effort	Start	Ready
Sprint 1 - Briefing phase	I. Kick-off meeting with client II.	07/10/24	16/10/24
Sprint 2 - Discover phase	I. Target audience primary and secondary research II. Expert interview	17/10/24	29/10/24
Sprint 3 - Define phase	I. Define problems of the target audience to be solved with the final product II. Creation of personas III. Finalize concept with integrated inputs from target audience	30/10/24	06/11/24
Sprint 4 - Develop phase	I. Product design process based on finalized concept II. Design testing III. Product development	07/10/24	04/12/24
Final sprint - Deliver phase	I. Product testing II. Delivery to client and stakeholders	05/12/24	16/12/24

3. Project Organization

3.1 Team members

Name	E-mail	Role/tasks	Availability
Claudia Cretu	*c.cretu@student.fontys.nl*	*Front-end developer and Strategist*	*Weekdays from 9 am - 6 pm*
Ellyshia Cheryl Tan	*ellyshia.ellyshiacheryltan@student.fontys.nl*	*Front-end developer, 3D designer, and Strategist*	*Weekdays from 9 am - 6 pm*
Jasmin Hachmane	*j.hachmane@student.fontys.nl*	*UX Researcher, Designer and Developer*	*Weekdays from 9am - ?pm*
Magda Tsekova	*m.tsekova@student.fontys.nl*	*Designer and Strategist*	*Weekdays from 9am - 4pm*
Nikoleta Mihova	*n.mihova@student.fontys.nl*	*UX Researcher, Designer and Developer*	*Weekdays from 9 am - 6 pm*
Sumaya Baarako	*s.baraako@student.fontys.nl*	*UX Researcher, Designer and Developer*	*weekdays from 9 am - 7pm*

3.2 Communication (Magda)

Coordination typically involves regular interactions with the company supervisor, teacher supervisor, and other relevant stakeholders. Here's how these attunements are structured:

- **Company supervisor:** Regular catch-up meetings on a weekly basis, typically once per week, are held in order to discuss goals, progress and forward steps towards the final evaluation. These meetings are scheduled in advance and are typically held via online channels such as Zoom or Teams or in-person depending on the company's working preferences. For any other formal communication Outlook is being used.

- **Teachers supervisors:** Regular check-in talks occur after each key milestone, such as project kick-off, mid-term reviews and possible difficulties.

3.3 Configuration management (Claudia)

The team will work together at the development part of the project using the GitLab version control tool.

- create a Git directory for the project
- create a repository
- create a main branch
- work in a separate branch for every new feature
- check with colleagues individual work
- push to the main branch

4. Risks and mitigation strategy

4.1 Risks and fall-back activities (All members can add to the table)

Risk	Prevention activities included in plan	Fall-back Activities
1 Team member quits education		Task overflow
2 Team member is unable to attend and thus, unable to conduct her task assigned	Each task is assigned a minimum members to execute and a plus one person in case of inability of the other/s to attend	Continuing the task with the team members available.
3 Project progress hindered due to the slow contact process with the client, stakeholders, and/or target audience.	Planning ahead and flexibility prioritised, so the flow of the project does not always have to depend on external parties.	Team still proceeds with the tasks and steps in the project, even with missing inputs from the external parties.
4 Time risks	Plan tasks in advance and make sure there is enough time to complete	Tasks not completed in time