Business Requirements Document

AI Music Lyrics Composition Assistant

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# Executive Summary

This Business Requirements Document (BRD) outlines the requirements for the AI Music Lyrics composition assistant. It contains both functional and non-functional requirements, an overview of the current status, as well as the proposed process once the solution is implemented. It is used to determine what needs to be done, and as a starting point for solution design.

# Project Description

“Writer’s Block” as the name implies, is one major pitfall that most creative today face while creating literature, poems, movie scripts, and song lyrics. It takes a lot of time, effort and motivation to get all the ideas from the mind, to pen and paper before any production can be done.

Previously creatives have been known to hide the fact that they hire ghost writers in order to help create lyrics and writeups so as to stay consistent in the industry, and sometimes if there is no synergy the creatives tend to drift off their original styles and brand due to external influences in the creative process.

After these two facts have been established, I decided to carry out this project in order to build a user interface in which creatives can feed their previous compositions and write ups of whatever kind or media into an AI text generator model, and the machine will be able to predict and generate ideas in form of texts and sentences in order to assist the creatives in reproducing those billboard topping music composition, consistently. Consistency is the key to success in the entertainment industry!

# Project Scope

## In Scope

The following areas are in scope for this project:

* NLP text generation model
* GUI creation
* Text Processing

## Out of Scope

The following areas are out of scope for this project:

* Audio generation
* Musical generation
* Audio engineering

# Business Drivers

* Improve efficiency in the music production process
* Reduce time or costs of song writing process
* Avoid legal and copyright issues

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## Business Driver 1

Improve efficiency in the music production process

* This new innovation is going to be a breakthrough not just for experienced music lyrics composers but will be a very great advantage to new comer musicians trying to find a grip around lyrics composition.

## Business Driver 2

Reduce time and cost of song writing

* It cost a lot to get ghost writers to project an artiste’s creativity in form or words. This AI solution which can be retrained over and over again with more original lyrics of a certain composer can help create ideas which will be in line with a composer’s style, and this will reduce the time it takes to create a song and also the cost of hiring another individual to do that for the composer.

## Business Driver 3

Avoid Legal and copyright issues.

* A lot of copyright issues are involved in hiring individuals to assist in the creative process of music production. This AI solution will definitely cut down legal issues in the aspect of song writers copyright when applied appropriately.

# Proposed Process

This project will entail 5 major processes

* Initiation and approval
* Data set availability search
* Training an NLP model
* Testing the Model
* Creating the GUI
* Integration into a music production workflow

# Functional Requirements

## Priority

The requirements in this document are divided into the following categories:

|  |  |  |
| --- | --- | --- |
| **Value** | **Rating** | **Description** |
| 1 | Critical | This requirement is critical to the success of the project. The project will not be possible without this requirement. |
| 2 | High | This requirement is high priority, but the project can be implemented at a bare minimum without this requirement. |
| 3 | Medium | This requirement is somewhat important, as it provides some value but the project can proceed without it. |
| 4 | Low | This is a low priority requirement, or a “nice to have” feature, if time and cost allow it. |
| 5 | Future | This requirement is out of scope for this project, and has been included here for a possible future release. |

## Requirements Category 1 (RQC)

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Requirement** | **Priority** | **Raised By** |
| RQC | Data | Critical |  |
| RQC 2 | RNN algorithm | Critical |  |
| RQC 3 | Error free Text generation Model | Critical |  |
| RQC 4 | Fast processing computer system | Critical |  |
| RQC 5 | GUI creation and deployment tool | Critical |  |

# Non-Functional Requirements

|  |  |
| --- | --- |
| **ID** | **Requirement** |
| NFR | Human music Lyrics composer |
| NFR 2 | Music Instrumentals |
| NFR 3 |  |

# References

|  |  |
| --- | --- |
| **Name** | **Link** |
| Roger B. Dannenberg | http://www.cs.cmu.edu/~rbd |
| Dan Nelson | https://stackabuse.com/text-generation-with-python-and-tensorflow-keras/ |
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# Document History

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| --- | --- | --- | --- |
| **Version** | **Date** | **Changes** | **Author** |
| 0.1 | 24/01/2020 | First document | Uche Osakwe |
| 0.2 |  |  |  |
| 0.3 |  |  |  |
| 0.4 |  |  |  |
| 0.5 |  |  |  |