Architecture research document

for

HeardIT

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1. Introduction

The purpose of this document is to outline the research process taken during the architecture design process of the HeardIT application. The research is split into the following sections *– Main research question*, where the main question is defined, *Sub-questions*, where the sub-question derived from the main questions are defined and answered and *Conclusion*, where the answers to the sub-questions are combined in order to answer the main question. The final section is the *References* section where the sources of the information used during the research are presented.

1. Main question

In this section the main question will be established. In order to complete the research, the main question needs to have a concrete answer. For this reason, it is important to define the main question well. The main question will also allow us to create the sub-questions that will help us answer the main question.

The main research question is:

*What is the most suitable architecture type for the HeardIT web-application?*

Answering this question will allow us to determine the best architecture design for the HeardIT application. In the next section I will establish the sub-questions that were derived from the main question and I will formulate an answer to each of them.

1. Sub-questions
2. What type of architecture designs are suitable for the HeardIT application?

Methods used: Literature study, Expert interview

1. Which architecture design meets the scalability and stability requirements?

Methods used: Brainstorm, Prototyping, Expert interview, System test

1. Which architecture design meets the maintainability requirements?

Methods used: Literature study, Document analysis, Expert interview

1. Which architecture design meets the requirements for cloud native applications?

Methods used: Brainstorm, Prototyping, Problem analysis, Expert interview, System test

1. Which architecture design meets the security requirements?

Methods used: Data analytics, Problem analysis, Expert interview

1. Conclusion

To conclude this research, I am going to design the HeardIT application architecture to follow the \_\_\_\_\_\_\_\_\_.

have answered all of the sub-questions above. Now that we have done this, we can answer the main question. In order to analyse the Bamboo build logs with custom regular expressions we will create a script using PowerShell scripting language, using the new regular expressions and the newly developed functions we will extract the log files from the Vanderlande servers, analyse the log files and record them in a CSV file that can be exported and further analysed in Excel.

With this we can conclude the research that was conducted during the development of the Test-Broker Engine Failure analysing script product.

**References:**

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