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# **Vision and Scope Document**

**for**

## **Sir Phileas' Reise**

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**Gruppe 2**

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## 1. Business Requirements

### Mandatory Requirements

1. A web interface allows users to create accounts and to log in.
  - a. Logged in users can play a serious game.
  - b. The game's purpose is to impart knowledge about a certain topic, e.g. a HCI topic.
  - c. The game encodes the learning content by means of central game mechanics
  - d. The game utilizes the engaging aspects of computer games to realize a motivating learning environment.
  - e. The game provides clear goals and meaningful rewards, like highscores, rankings, or virtual goods.
  - f. Game objects, like rewards, and user progress are saved in and retrieved from a database
2. A JavaFX interface allows authors to manage user data and game objects.
3. A short (1-2 min) video showcases the prototype's features.
  - a. The HCI chair's video template has to be used.
  - b. The video has to be encoded using the H264 or any other MPEG-4 codec and has to be stored using the mp4 container format

## **1.1 Background**

Children, teenagers and adults are often busy working or have regular obligations like school, homework and club activities which leads to a significant reduction regarding the motivation to strengthen their general knowledge. Furthermore younger people often don't know how to learn in a right way, which leads to a messy learning system, bad grades and ultimately those people are not able to retrieve their memory about certain topics at all. Lastly it is proven that young people tend to learn more efficiently while playing games, including the improvement of certain cognitive skills depending on the game mechanics, which can be beneficial for further education and workplaces.

## **1.2 Business Opportunity**

The described product is meant as an assistant for all kind of people to learn about topics they are interested in. While the main game is solely about the world and its inhabitants – their culture and the places they are living at – teachers, students and people who are interested in certain topics, are able to modify the content of the game ad libitum in order to customize it for every given situation e.g. a lecture. Because the game mechanics are being kept simple the game itself can be played on various devices which can save a significant amount of time (e.g. during a train ride instead of waiting for the arrival until the costumer reaches home).

Other games are mostly sole memory games or learning devices with no possibilities to change the content which is not beneficial to the user at all.

## **1.3 Business Objectives**

BO-1: improving the overall general knowledge about the world.

- culture
- food
- language
- landscape

BO-2: improving the knowledge of certain topics depending on the user with the help of the author tool.

BO-3: increasing certain cognitive skills.

## **1.4 Success Metrics**

SM-1: randomizing of cards and questions assures the optimal way to improve the memory by a certain degree.

SM-2: Design customizations assures a wide range of a target group.

## **1.5 Vision Statement**

The users who desire an optimal way of learning and a slight challenge to keep the learning up, will be perfectly assisted with this game. The ranking system will provide a certain degree of a challenge and QR-Codes will provide the user with further customization possibilities. Unlike other games this game will not be stagnant at any given point and is perfectly flexible. The ability of being portable will also reduce expenditure of time and saves a certain amount of weight because no books are required in order to learn something new.

## **1.6 Business Risks**

- RI-1: competition is high because of the simple mechanics.
- RI-2: the system can not be used at some places because of certain restrictions (e.g. school).
- RI-3: the game can become addictive to young people which will lead to deletion through the parents or guardians.
- RI-5: author tool could be too difficult to use for some costumers with minimal IT knowledge, which will lead to bad reviews and ultimately not using the game.

# **2 Scope and Limitations**

## **2.1 Major Features**

- FE-1: Ranking system
  - different titles regarding the stage the map is in (can be find under profile)
- FE-2: Progress bar
  - train is riding through the day. If it reaches night time, the game is lost.
- FE-3: Author tool
  - questions and userdata can be modified.
- FE-4: Visualization of overall progress via map.
- FE-5: Different levels of difficulties

## 2.2 Scope of Initial Release

1. Feature	2. Release 1	3. Release 2	4. Release 3
FE-1, Ranking system	<i>Simple count of own collected points</i>	<i>Map display changes regarding of questions being answered right.</i>	<i>Changes title in profile, regarding how many countries are won</i>
FE-2, Progress bar	<i>Not implemented</i>	<i>Shows progress bar until the player loses the currently played level</i>	<i>Fully implemented</i>
FE-3, Author tool	<i>Not implemented</i>	<i>Assures players to modify the questions and user data</i>	<i>Fully implemented</i>
FE-4, Design customization	<i>Not implemented</i>	<i>Not implemented</i>	<i>Not implemented</i>
FE-5, Different levels of difficulties	<i>Assures that the player will stay challenged, regardless of their age</i>	<i>Fully implemented</i>	<i>Fully implemented</i>

## 2.3 Limitations and Exclusions

LI-1: chat function

LI-2: exchange of collected goods

# 3 Business Context

## 3.1 Deployment Considerations

The web server software will need to be upgraded to the latest version and apps will have to be developed for iOS and Android smartphones as well as tablets as part of the first release. Any corresponding infrastructure changes must be in place at the time of the second release.