**Vision Doc CECS 343**

**King of Tokyo**

Hunter Davis

Tymee Kong

Tanner Mindrum

**Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Version | Description | Authors |
| 9/20/2019 | 1.0 | Initial Vision Document | Hunter Davis  Tymee Kong  Tanner Mindrum |
|  |  |  |  |
|  |  |  |  |

**Table of Contents**

[**1. Introduction**](#_lj6nddev9v7p) **6**

[**1.1 Purpose**](#_wlhqo6rwja5c) **6**

[**1.2 Scope**](#_hp3tncpbk3wb) **6**

[**1.3 Definitions, Acronyms, Abbreviations**](#_od84gle5kbb) **6**

[**1.4 References**](#_jb62zw4xe7rg) **6**

[**2. Positioning**](#_q2e7vhpkywv1) **7**

[**2.1 Business Opportunity**](#_jj5tsjri2cs) **7**

[**2.2 Problem Statement**](#_4xi23gkp8foi) **7**

[**2.3 Product Position Statement**](#_e8an2fxxfn7a) **7**

[**3. Stakeholder and User Descriptions**](#_cwmd8ecssf7f) **8**

[**3.1 Market Demographics**](#_scl96xrilshh) **8**

[**3.2 Stakeholder Summary**](#_6po819wvbph0) **8**

[**3.3 User Summary**](#_555d2mrv5bpm) **9**

[**3.4 User Environment**](#_yvxikh94qi86) **9**

[**3.5 Stakeholder Profiles**](#_y4s2cbag4lgh) **9**

[**3.6 User Profiles**](#_6mouf9pnsl0t) **10**

[**3.7 Key Stakeholder or User Needs**](#_qlo9fjndrk6k) **10**

[**3.8 Alternatives and Competition**](#_m0c1sulrmugo) **11**

[**4. Product Overview**](#_laqqnau4w49a) **11**

[**4.1 Product perspective**](#_e5svlfmeesw3) **11**

[**4.2 Summary of Capabilities**](#_qtz7gxm5wgdb) **11**

[**4.3 Assumptions and Dependencies**](#_nimc808gvnzy) **12**

[**4.4 Cost and Pricing**](#_un1xwfts06cu) **12**

[**4.5 Licensing and Installation**](#_xkm73guqx9re) **12**

[**5. Product Features**](#_szeriwia69zu) **12**

[**5.1 System Features**](#_1zrumi414m4f) **12**

[**5.2 Players**](#_un6v6gkkzgbv) **12**

[**5.3 Game Assets**](#_gm2745hv4p6v) **12**

[**6. Constraints**](#_2gkqy96u9nbw) **12**

[**6.1 Usability**](#_zb8uvddqmrqj) **12**

[**6.2 Performance**](#_d1zd5gulcoos) **13**

[**7. Quality Ranges**](#_c7imh922owre) **13**

[**7.1 Internet Connection**](#_2z9sd03z3pgu) **13**

[**7.2 Game Size**](#_dzzy0qz8nrft) **13**

[**7.3 System Requirements**](#_4cg4cy9pqqsf) **13**

[**8. Precedence and Priority**](#_yxr60igqkvm) **13**

[**9. Other Product Requirements**](#_f7zgqhtqgcrp) **13**

[**9.1 Functional Requirements**](#_i6u94foynpv4) **13**

[**9.2 Non-Functional Requirements**](#_xva53nubujjj) **14**

[**9.3 System Requirements**](#_ljfct2kg9yr8) **15**

[**10. Documentation Requirements**](#_pge0q09xjs75) **15**

[**10.1 Release Notes, Readme File, Installation Guide**](#_ciwcot3nk1fn) **15**

[**10.2 Online Help**](#_9esmp73fqbbn) **15**

# 

# 1. Introduction

# 

## 1.1 Purpose

The purpose of this Vision document is to create and implement a tabletop game called King of Tokyo (KoT). KoT will target users who are fans of tabletop games and want to play a digital version of KoT.

## 1.2 Scope

This vision document applies to the KoT digital board game, which will be developed by Hunter Davis, Tymee Kong, and Tanner Mindrum (HTT). HTT will develop KoT in Java to work on PC platforms with modern operating systems. KoT will be a digital board game that can be played by all people eight years or older. The game will be developed to be accessible so that children, young adults, elderly people, non-gamers, casual gamers, and hardcore gamers can all enjoy the game to the same degree.

## 1.3 Definitions, Acronyms, Abbreviations

* KoT - King of Tokyo
* HTT - Hunter, Tymee, Tanner (group name)
* PC - Personal Computer
* OS - Operating System

## 1.4 References

* Vision Document - [IBM Rational](https://trello-attachments.s3.amazonaws.com/5d7825d1741236750bee583c/5d7ab5c6120fb76416dc4e37/3bcb4dbc27119671da7021334055ea09/Vision_Document_-_IBM_Rational.pdf)
* Vision Document - [Diplomacy](https://trello-attachments.s3.amazonaws.com/5d7825d1741236750bee583c/5d7ab5c6120fb76416dc4e37/545b35789b0331881b326206ac7a91f4/Vision_Document_-_v1.0.pdf)
* Vision Document - [Team Obiwan](https://trello-attachments.s3.amazonaws.com/5d7825d1741236750bee583c/5d7ab5c6120fb76416dc4e37/25734e1e65b310b2c7d7976c989565ae/1_-_VisionDoc_Example.pdf)
* King of Tokyo [FAQ](https://github.com/Tanner-Mindrum/343-KingOfTokyo-HTT/blob/master/Documentation/References/KingOfTokyoFAQ.pdf)
* King of Tokyo [Card List](https://github.com/Tanner-Mindrum/343-KingOfTokyo-HTT/blob/master/Documentation/References/KingOfTokyoCardList.xls)
* King of Tokyo [Reference Guide](https://github.com/Tanner-Mindrum/343-KingOfTokyo-HTT/blob/master/Documentation/References/KingOfTokyoCardReferenceGuide.doc)
* King of Tokyo [Player Aids](https://github.com/Tanner-Mindrum/343-KingOfTokyo-HTT/blob/master/Documentation/References/KingOfTokyoPlayerAids.pdf)
* King of Tokyo [Rulebook](https://github.com/Tanner-Mindrum/343-KingOfTokyo-HTT/blob/master/Documentation/References/KingOfTokyoRulebook.pdf)
* King of Tokyo [Score Track](https://github.com/Tanner-Mindrum/343-KingOfTokyo-HTT/blob/master/Documentation/References/KingOfTokyoScoreTrack.pdf)
* King of Tokyo [wikipedia](https://en.wikipedia.org/wiki/King_of_Tokyo)
* King of Tokyo [website](https://iellousa.com/products/king-of-tokyo)

# 

# 2. Positioning

# 

## 2.1 Business Opportunity

As time goes on, technology advances very rapidly and it is easier for people to have access to computers and the internet. Since computers are so popular, there would be a wider audience for a PC platform of King of Tokyo. Creating a digital version of King of Tokyo would be convenient for people that do not have the ability to get together with their friends to play it. If they can play it on the PC it would be much easier for people to play with their friends.

## 2.2 Problem Statement

|  |  |
| --- | --- |
| The problem of | people not being able to play board games wherever they like, however they like |
| affects | everyone 8+ years of age and every class of gamers who are looking to play King of Tokyo in a new, digital way |
| The impact of which is | inability to play KoT in non-traditional ways such as on-the-go and difficulty playing in the game how they want, when they want |
| A successful solution would be | A robust, fully-functional PC application that allows users to experience the same KoT board game in a brand new digital fashion. The product would provide players of all ages and all types of gamers with the ability to play KoT in new ways on a digital platform. The product will contain everything the original physical board game has and will be intuitive and user-friendly. |

## 2.3 Product Position Statement

|  |  |
| --- | --- |
| For | all ages 8+ years of age, non-gamers, casual gamers, and hardcore gamers |
| Who | want to play a digital version of KoT |
| King of Tokyo (KoT) | is a digital board game software application |
| That | provides the ability to play KoT whenever and however a user wants through the intuitive, user-friendly digital version of the game |
| Unlike | Currently available applications that are not fully-functional, user-friendly, nor completely fleshed out |
| Our product | Provides users with the ability to play the same KoT that they’d expect to play when playing the physical version, but with greater usability through a bug-free design. This is accomplished through easy to use game functions and a simple user interface. |

# 

# 3. Stakeholder and User Descriptions

## 3.1 Market Demographics

The market for digital board games is growing. Digital board games can be purchased on multiple PC gaming platforms, such as Steam, for on average $20 USD. The tabletop market is growing due to a wider acceptance of gaming culture and easier accessibility to games on a variety of platforms. Tabletop Simulator, a PC game that allows users to build and play other user’s board games, is one example of a factor that is paving the way for the growth of tabletop games, especially in digital formats.

The targeted market includes non-gamers, casual gamers, and hardcore gamers ages 8+ and anyone interested in tabletop games.

## 3.2 Stakeholder Summary

|  |  |  |
| --- | --- | --- |
| **Name** | **Description** | **Responsibilities** |
| Software Engineers (Hunter Davis, Tymee Kong, Tanner Mindrum) | This stakeholder works with software engineers to develop code for KoT. | Responsible for the overall software design and translating designs into code. |
| Advisor (Anthony Giacolone) | Facilitates development of project and checks to make sure requirements are being completed | Responsible for moving project through the development process and providing assistance to software engineers |

## 3.3 User Summary

|  |  |  |
| --- | --- | --- |
| **Name** | **Description** | **Responsibilities** |
| Players (users) | 2-6 users of ages 8+ that will use the application to play KoT. | Uses application to play KoT in a new digital way. |

## 3.4 User Environment

1. The King of Tokyo application will be used by casual and hardcore gamers, with a possible interest in board or card games.
2. The users will be able to download the game for free online, with no fees or cost associated from the developers.
3. The users will be able to download the game online and play with others locally on their hardware, typically on a home or shared computer.
4. The users will be able to play the game to their desires (an unlimited amount of times), with their own time and personal systems being the only constraints.
5. As long as the users have access to the internet, and/or PC systems are able to run local software and have KoT downloaded, KoT will be accessible to them.
6. The system shall allow for multiple users or a single user to play the game on a single system.
7. The system shall provide an interface in which to play the game, accessible to those who speak english.
8. All users shall have equal access to the program while running (AKA no cheating/cheat codes).

## 3.5 Stakeholder Profiles

**Adults**

|  |  |
| --- | --- |
| **Description** | Users aged 18+ |
| **Type** | A casual or hardcore user who is looking to play KoT digitally |
| **Responsibilities** | Uses application to play KoT just as they would in a physical form. |
| **Success Criteria** | To have continuous and returning use of KoT by users |
| **Involvement** | Test users to beta test our digital version of KoT |
| **Deliverables** | None |
| **Comments/Issues** | None |

**Children**

|  |  |
| --- | --- |
| **Description** | Users aged 8-17 |
| **Type** | A casual or hardcore user who is looking to play KoT digitally |
| **Responsibilities** | Uses application to play KoT just as they would in a physical form. |
| **Success Criteria** | To have continuous and returning use of KoT by users |
| **Involvement** | Test users to beta test our digital version of KoT |
| **Deliverables** | None |
| **Comments/Issues** | None |

## 3.6 User Profiles

See Previous Section

## 3.7 Key Stakeholder or User Needs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Need** | **Priority** | **Concerns** | **Current Solution** | **Proposed Solutions** |
| Ease of Use | High | Ability for users to pick up and play the game without memorization of game rules | See proposed | Provide copies of game documentation from direct creator of the game |
| Flexibility of players | Moderate | Ability for singular users to | See proposed | Provide an AI-based system for a singular user to play with AI opponents if user doesn’t have other local players available |

## 3.8 Alternatives and Competition

The alternatives to this downloadable version of KoT are:

1. The physical board game, available for purchase from the creators.
2. Other online alternatives, such as a version available in the game TableTop Simulator.
3. Other alternatives provided by groups within the same CECS 343 class.

# 

# 4. Product Overview

## 4.1 Product perspective

King of Tokyo is a tabletop game designed for 2 - 6 players. Each player will be able to control a specific monster. Players will compete against each other to get to 20 victory points or one player eliminates all other players from the game; once the player wins they will be declared King of Tokyo.

## 4.2 Summary of Capabilities

1. This game is based on an existing tabletop game
2. This game does not need an internet connection to play
3. Convenient for players that do not have the physical version

## 4.3 Assumptions and Dependencies

1. A mouse and keyboard
2. Display monitor
3. Desktop
4. Internet Connection required for download

## 4.4 Cost and Pricing

1. The game will be free to all players.
2. KoT can be downloaded for free from GitHub, a free, open-source platform

## 4.5 Licensing and Installation

Users will need an internet connection to download the game, for educational purposes only.

# 5. Product Features

## 5.1 System Features

Game will feature the full implementation of the board game King of Tokyo, available on PC. It will follow the rules, concepts, and regulations of the original game.

## 5.2 Players

The game can be played with two up to six players.

## 5.3 Game Assets

The game will feature monsters, a display of Tokyo, 6 dice, 2 green dice, tokens, energy cubes, and 66 power cards.

# 6. Constraints

## 6.1 Usability

The software requires an internet connection to download, and will be available offline once downloaded. There will be included copies of the game rules, FAQ’s, and how to play.

## 6.2 Performance

Performance will be accomodated to work with most modern computers running a modern operating system, with an acceptable amount of responsiveness to the game logic and UI.

# 7. Quality Ranges

## 7.1 Internet Connection

There will be no required an internet connection to play the game.

## 7.2 Game Size

The game will be less than 250 Megabyte download.

## 7.3 System Requirements

This program will have a very low system requirement. It should run on most hardware as long as it has a modern operating system.

# 8. Precedence and Priority

Our main priority for this game is to replicate the tabletop game as accurately as possible. We want to provide an entry for players who want to play the game but do not have the ability to buy a physical copy of the game.

# 9. Other Product Requirements

## 9.1 Functional Requirements

|  |  |  |
| --- | --- | --- |
| **ID** | **Name** | **Description** |
| 1 | Profile Creation | Players will have the ability to create a profile for their game, entering a name and selecting their player token (monster). |
| 2 | UI Implementation | Implementation of Buttons and images for UI instead of just text-based gameplay. |
| 3 | Roll Dice | Players will be able to roll dice on their turn by clicking a button. |
| 4 | Re-roll Dice | Players will have the ability to re - roll dice up to three times. |
| 5 | Play Card | Players will be able to play a power card. |
| 6 | Player Eliminated | Players can be eliminated from the game after losing all their health. |
| 7 | Start Game | User will be able to start the game. |
| 8 | End Game | User can end the game at any time. |
| 9 | Buy Card | Players will have the ability to purchase cards through energy cubes. |
| 10 | Turn order | Implement a turn order system for players, notifying them of their turn. |
| 11 | Resolve dice | When dice are rolled, players can perform the action the dice requires. |
| 12 | Pick monster | Players are able to pick which monster |
| 13 | Spend Energy Cube | Players can spend energy cubes to buy power cards |
| 14 | Tokens and Green Dice | To be used with certain Power cards |

## 9.2 Non-Functional Requirements

|  |  |  |
| --- | --- | --- |
| **ID** | **Name** | **Description** |
| 1 | Persistent Profiles | Stores persistent profiles onto the hard drive, can select from these again each play instead of re-creating names and profiles. |
| 2 | Platform | Implementation and testing of game software on different desktop OSes such as Windows 7/8/10, MacOS, and Linux Ubuntu. |
| 3 | Response Time | The response time of the game should be quick and responsive. |
| 4 | Polished User Interface | The user interface should be responsive, quick, intuitive, and visually appealing. |
| 5 | Players | The game must support 2-6 concurrent players. |
| 6 | Error Handling | The system should catch common errors and resolve them without halting the game. |
| 7 | Documentation | Documentation will be updated throughout the development process. There will be clear documentation that outlines all project requirements. |

## 9.3 System Requirements

This game will have low system requirements will run on most hardware as long as the PC is running on a modern operating system.

# 10. Documentation Requirements

## 10.1 Release Notes, Readme File, Installation Guide

There will be standardized release notes and a readme file within the GitHub repository where the software will be downloaded. The readme file will describe the process of downloading and installing the software. There will also be release notes and an update log of all past and present updates made to the software.

## 10.2 Online Help

1. King of Tokyo website
2. Wikipedia

###### 