King of Tokyo: Project Plan

Document Version Number: 2.0

Development Team
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1. Overview

The following is RDK Co.'s plan for digitizing the popular board game, *King of Tokyo*, playable on PC's running Java. King of Tokyo is aimed towards PC gamers and traditional board game players and hopes to capture the interests of users playing an age old favorite right on their desktop. Unlike PC game companies today, who are constantly at war with one another to bring the best quality, graphics, and gameplay, RDK Co. seeks to take our users back to experience the traditional aspects of board games their parents and grandparents loved. By the end of the development of this game, we hope to reinvigorate classic PC board games or card games which can boost the overall popularity of these genres. Since this game already exists, the cost of creating our product is fairly low. Additionally, development should not take longer than 3 months and we hope to launch by December 12, 2019.

2. Goals and Scope

The primary goal of our ambitions is to reconstruct the *King of Tokyo* board game into a portable video game application based in Java. Project-based goals and constraints will be set alongside our main goal in order to provide clear guidelines and expectations for the development of the project.

2.1 Project Goals

Project Goal	**Priority (1:low -- 3:high)**	**Comment/Description/Reference**
Functional Goals		
Complete planning by the end of the first month of development	3	Project plan should be continuously followed and referenced by all team members for general organization purposes
Business Goals		
Complete and launch project by projected date	3	Development completion is expected by the first week of December, with all related deliverables
Technological Goals		
Organize and configure development software	1	Development will take place on an open source IDE with support for Java and its GUI libraries

Quality Goals		
Ensure quality of development per goal is controlled and consistent	2	While product quality is one of the main developmental concerns, the project team will primarily focus on the game's base implementations, before refining the code and GUI
Constraints		
Monitor hardware, software requirements for development environment	1	Any personal computer should be able to access the *King of Tokyo* digital board game, as long as they have Java installed and running on the machine
Ensure coding standards are applied accordingly	3	Organization and structuring of code should be easy to read and configure for future developmental needs

2.2 Project Scope

The following section will include the specifications of deliverables to be made available by the projected launch date.

2.2.1 Included

Explicit deliverables that are expected to be provided:

- Download link for our digitized version of *King of Tokyo*
- The *King of Tokyo* video game executable
    - Base game/source files
    - A functional GUI that communicates between software and user(s)
    - Single-player/offline capability
- *King of Tokyo* player's manual
- Readme file, briefly describing its creators and contents

2.2.2 Excluded

Implicit deliverables excluded from consumer expectations:

- Additional downloadable content (DLC's)

3. Organization

3.1 Organizational Boundaries and Interfaces

3.1.1 Resource Owner - Daniel Mendez

3.1.2 Receivers

Receivers of our deliverables are individuals interested in playing our digitized version of *King of Tokyo*. More specifically, this includes people ages 8 and over.

3.1.3 Suppliers

Company: Contact	**Deliverable**	**Comment**
Oracle	Java	Company that developed the Java coding language, for use in modern computing
Eclipse Foundation	Eclipse	Company responsible for the Eclipse IDE, used for various forms of software development

3.2 Project Organization

3.2.1 Project Managers

Organization: Name
Ranjit John, Daniel Mendez, Kevin Cruz

3.2.2 Project-Internal Functions

Function	**Organization: Name**	**Comment**
Validation Lead	Ranjit John	Marketing and campaign mgmt.
System Test Lead	Kevin Cruz	Project organization, analysis
Security Mgmt.	Daniel Mendez	System protections and policies
Risk Control	Ranjit John	Loss evaluation, threat prevention
QA Test Lead	Ranjit John	Program testing development
Config., Control Mgmt.	Daniel Mendez	Maintain functional requirements
Communications	Kevin Cruz	Interpersonal team communication

3.2.3 Project Team

Organization: Name	**Availability**	**Comment**
Daniel Mendez	M-Th	Primary availability T/Th
Ranjit John	M-Th	Primary availability T/Th
Kevin Cruz	M-Th	Primary availability T/Th

3.2.4 Steering Committee

Organization	**Name**	**Comment**
RDK Co.	Kevin Cruz	Assesses guidelines and general direction of ongoing processes within development

4. Schedule and Budget

4.1 Work Breakdown Structure

In order to meet the deadline of December 03-05, 2019, RDK Co. will begin immediately after this project plan is approved. Once approved, the first step is to get acquainted with the basics of Java's AWT and Swing libraries, since the majority of the project relies on these features. Since the members of RDK Co. are all experienced in Java, backend implementation should take no more than 1-1/2 months. The remaining time will be spent on Java GUI implementation and getting the game systems to work fluidly for a functional and intuitive user experience.

4.2 Schedule and Milestones

Milestones	**Description**	**Milestone Criteria**	**Planned Date**
M0	Start Project	Project Assigned	2019-09-12
	Project goals and scope are defined	Vision Document assigned	
M1	Start Planning		2019-09-20
	Vision Document completed; Project Plan assigned	Goals and scope are described	
M2	Begin Execution		2019-10-01
	Project Plan completed; begin	Requirements agreed, Project	

	design and backend	plan reviewed	
M3	Confirm Execution		2019-11-15
	Design and backend completed; begin UI	Design is stable, backend is correct and efficient	
M4	Start Introduction		2019-11-22
	UI completed; final adjustments	System has been undergoing testing, documentation draft	
M5	Release Product		2019-12-10
	System has been fully tested, finalize documentation	Product system has been tested, documentation reviewed	
M6	Close Project		2019-12-12

4.3 Budget

Category	**Budget**	**for**	**Period**	**in**	**Time**	**hrs.**
	M0 - M1	**M1 - M2**	**M2 - M3**	**M3 - M4**	**M4 - M5**	**M5 - M6**
Human Resources (internal)	2	2	2	2	2	2
Equipment	0	0	0	0	0	0
Tools	0	5	0	0	0	0
Travel Costs	0	0	0	0	0	0
Review Activities	2	4	40	10	5	5
Other	0	0	0	0	0	0
Total	4	11	42	12	7	7
Total Accumulated	4	15	57	69	78	85

4.4 Development Process

For this project, RDK Co. will be utilizing the Extreme Programming (XP) agile process. Since we are a small group, pair programming is a given since we all have different programming strengths and weaknesses. Unit testing will be relevant throughout the project when medium to large portions of the backend are complete. These tests will ensure that the system works and limits any potential backtracking that could have occurred if these tests had not been performed. Each milestone will be considered as a "user story" and will therefore be grouped in deliverable increments. After every milestone, a commitment will be made for the next milestone. Overall, we believe this agile process to be the best for RDK Co. to approach this project.

4.5 Development Environment

Item	**Applied for**	**Availability by**
Methods		
N/A		
Tools		
Java AWT, Swing	UI	M0
DIA or Draw.io	Design	M0
Languages		
Java	Backend	M0

4.6 Measurements Program

Type of data	**Purpose**	**Responsibility**
# of major changes	To ensure that they are recorded and are relevant to the overall system	CCM and QA
# of major errors	To ensure these errors are not repeated later during development	CCM and QA
Performance Data	Assess project requirements after major portion completed	QA Lead

5. Risk Management

Project Risks:
- Equipment failure
- Late delivery of software
- Technology will not meet expectations
- Changes in requirements
- Deviation from software engineering standards
- Poor commenting of source code

Risk Table: (1-5, low to high)

Risks	Probability	Impact
Equipment failure	30%	5
Late delivery of software	20%	5
Technology will not meet expectations	10%	4
Changes in requirements	20%	2
Deviation from software engineering standards	25%	5
Poor commenting of source code	15%	3

5.1 Risk Mitigation, Monitoring, and Management (RMMM):

Risks are bound to happen in any project, so we have some ways to pad ourselves when the inevitable happens. First we will identity the risk and recognize/describe them. Second, we will analyze the risk and determine the consequence of each risk. Third, we will evaluate and rank the risk according to its impact on the project. Fourth, we will try to treat the risk and find possible solutions for it. Finally, after we solve the problem, we will monitor our systems so we can prevent it from happening again. Each week the project manager will revisit this section and update any probable risks we identify.

6. Communication and Reporting

Type of communication	Method / Tool	Frequency / Schedule	Information	Participants / Responsibilities
		Internal communication		
Project meetings	In-person laboratory meet-ups	Weekly, T/Th	Project requirements, status, problems, risks	Project Mgr., Project Team
Sharing project data	Shared online repository (Github)	Whenever available	All project documentation, source game files	Project Mgr., Project Team
		External communication		
Project reports	Social application software (Discord)	Weekly, T/Th	Project status, forecasts, weekly results	Project Mgr., Project Team

7. Delivery Plan

Ident.	Deliverable	Planned Date	Receiver
D1.	Vision Doc.	09/20/19	A. Giacalone
D2.	Project Plan	09/27/19	A. Giacalone
D3.	Flow Chart	10/18/19	A. Giacalone
D4.	Software QA	10/25/19	A. Giacalone
D5.	Test Plan	11/22/19	A. Giacalone
D6.	Program Prototype	11/29/19	A. Giacalone
D7.	Delivery of Final Code	12/12/19	A. Giacalone

All deliverables will be submitted through our GitHub and be accessed by the receiver, Mr. Giacalone.

8. Quality Assurance

To ensure the quality of our product, progress will be recorded and reviewed per completed development goal.

Development Goals	**Progress**	**Comment**
Complete Project Plan	Completed	Complete base outline, to be revised during continuing development
Complete Use Cases	Completed	Complete use case structuring and definitions
Complete Test Cases	Completed	Complete test case structuring and definitions
Complete User Manual	Completed	Complete user manual documentation

9. Configuration and Change Management

The main focus of the Configuration and Change Management (CCM) is to identify, record, and control any major software change. If such a major change occurs, CCM will ensure that the change is necessary and if so, properly implemented. By performing these tasks, unnecessary changes will be eliminated, all necessary changes will be monitored and controlled, and it will be ensured that these changes have their impact limited on the entire system. This allows software development to continue to flow even with major changes without having to backtrack.

Despite being a team of 3 people, we will still appoint a CCM lead to report to though we will all have oversight of this aspect of the project. The CCM team will be working closely with QA to make sure that every change makes sense and is applicable.

10. Security Aspects

Due to the scale and simplicity of this project, there will be no need to worry about contractor agreements. All information regarding this project will be between RDK Co. and the project manager. If any of this information is leaked or used without permission of RDK Co., the project manager will be immediately notified and appropriate actions will be taken.

11. Abbreviations and Definitions

Abbreviation	Definition
CCM	Configuration and Control Management
QA	Quality Assurance
RMMM	Risk Mitigation, Monitoring, and Management

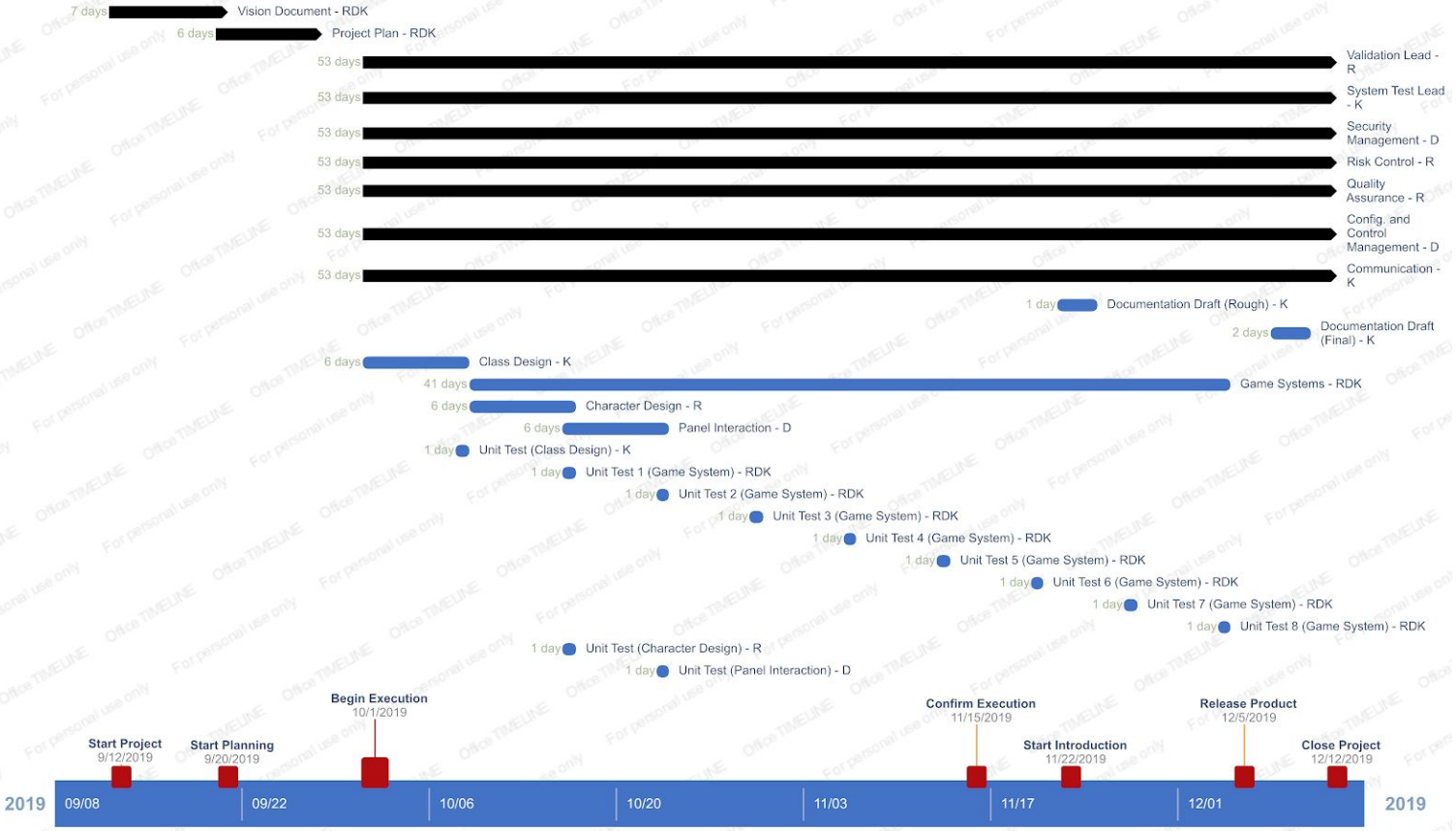
12. References

1. Vision Document for *King of Tokyo* - *https://github.com/danielmendez7899/CECS-343-Semester-Project/blob/master/Documents/Our%20Vision%20Statement.pdf*
2. Project Plan Template - https://images.template.net/wp-content/uploads/2015/10/17193808/project-list-template-word.pdf
3. Project Plan Sample - http://www.mhhe.com/engcs/compsci/pressman/graphics/Pressman5sepa/common/cs2/projplan.pdf

13. Revision

Revision	Page (P) Chapt. (C)	Description	Date Dept. / Init.
-----	-----	Original version	24-09-19
02	-----	Revision 2.0	01-12-19

King of Tokyo Dev. Timeline



R = Ranjit D = Daniel K = Kevin