Requirement and Architecture Phase
TDT4240

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February 20, 2014

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1. Introduction

Project description:
Our project is a curling game project for Android. The game shall follow simple curling rules and will be a turn-based multiplayer game.

    The game will have a simple menu screen with the options to choose between tutorial, play game and exit. The game itself will utilize the touch function on android devices, where you will be able to send the ball with a given speed and manipulate the speed with swiping near the ball, either to decrease the friction for it to go longer or to add or subtract spin. to give the player a better feeling of how well he/she is doing the game when played will have a minimap to give a better overall view of the game.

    The tutorial will guide the player through the rules of curling and how the physics inn the game works.

2. REQUIREMENTS

2.1. FUNCTIONAL REQUIREMENTS

ID	Case
FR1	Start a new multiplayer game.
FR2	Send the curlingball down the lane.
FR3	Make the curlingball curl.
FR4	Use the broom to decrease friction, or change the spin/curl of the ball.
FR5	The curlingballs that collide shall obey the laws of physics.
FR6	Have a minimap that shows the overview of the game.
FR7	Scores shall be updated according to curling rules.
FR8	The game shall follow the rules of curling.
FR9	The game shall be pausable.
FR10	The game shall have a startmenu.
FR11	The game shall have a "how to play" screen.
FR12	The winner of the game shall be the one with the highest score.

2.2. QUALITY REQUIREMENTS

2.2.1. MODIFIABILITY

ID	A1
Source	End User
Stimulus	Wishes to change the number of rounds in the game
Environment	Runtime
Artifact	Configurations.
Response	The amount of rounds has been changed
Response Measure	Time, effort Should be less than 5 seconds

ID	A2
Source	Developer
Stimulus	Reduce coupling
Environment	Design time
Artifact	Code
Response	Deploy modification
Response Measure	Time, Should be no more than 3 hours

2.2.2. USABILITY

ID	A3
Source	End user
Stimulus	Learn to play the game
Environment	Runtime
Artifact	System
Response	The game is intuitive
Response Measure	User satisfaction and feedback. Task time, in 10 min you should be familiar with the game and its functionalities

2.3. COTS Components and Technical Constraints

The only constraints are that we program this game for android and its intended for mobile devices. If we were to publish the game, we would also get some constraints from Google's distribution mechanics.

2.4. Issues

2.5. Changes

References

[1] Len Bass, Paul Clements, Rick Kazman. *Software Architecture in Practice*– Addison-Wesley. 3rd edition, 2012