Project Report: Mancala game

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Systems modeling 2010

Summary

This is a report of the course project completed for Systems Modeling at Tartu University in 2010.

The goal was to develop a multiplayer version of the game Mancala.

It describes the role of the project participants, the execution and main design decisions made within the project and all its final deliverables.

Contents

List of participants

Name	Strengths	Project Tasks
Sergei Laada	Programming	Coding
Alari Lukk	Programming, system modeling	Object and class diagrams, team management & coordination
Priit Rand	Analysing	Object diagrams
Mirjam Rauba	Testing, communication	User stories, team management & coordination
Kersti Üts	Documentation	Documentation review & updates

Project overview

Project plan

Discovery & Scoping phase

The preparation for the project started on September 9th 2010 with the initial meeting of all the project participants. The goal of the meeting was for each group member to become familiar with each other and the project requirements as well as learn the rules for the game itself.

The results:

- Strengths and weaknesses of each group member were identified
- Roles and tasks assigned according to member profiles
- First 6 user stories for the Mancala game project documented

Development phase

Over a period of the next 9 weeks (16.09 – 18.11.2010) a weekly meeting was held on Thursdays at Tartu University's Faculty of Mathematics and Computer Sciences for the project participants to discuss the project's design and development questions and give an update on the progress of the individual tasks.

Because of the previous strong programming experience of one the project team members (Sergei), it was decided that the game will be written in ActionScript language targeting Adobe Flash Player platform.

Main milestones in Development phase:

- September 12th: shared Google Docs document created for capturing the user stories (mainly by Mirjam)
- October 30th: project repository created on github.com by Sergei
- November 5th: initial class diagram presented by Alari
- November 13th - 18th: the project's main executable and documentation files uploaded to repository and continuously updated by Sergei

Testing & Validation

A final meeting was held on November 25th to assess the project's progress and open issues before the submission deadline on November 30th.

Repository guide

The executable and documentation files were collected in a repository on github.com.

The main structure of the repository:

Repository		Description
Mancala		Main project folder
	Mancala.exe	The application file for the game (Adobe Flash Player)
	Initializer.fla Initializer.swf	The initialization class (.fla) and its release format file (.swf)
	/src	Contains all classes (graphic, event, working)
	/src/Events	Contains all event classes
	/src/Graphics	Contains all graphic classes
	/resources	Contains graphic files and links
	User_stories	Contains the user stories for the game
	About_code_design.doc	Code documentation guide
	About_the_project.doc	User manual guide
	About_the_game.doc	Background information on Mancala

Design decision guide

The initial step in the development of the project was familiarizing with the requirements and documenting the user stories.

Based on the user stories, object diagrams were created and a class diagram for the Mancala game completed.

Because of previous programming experience of one the project team members (Sergei), it was decided that the game will be written in ActionScript language.

A more detailed guide for code and model documentation and design pattern usage can be found in a separate project document: About_code_design.doc.