Requirements and Analysis Document for Project Dragon (RAD)

Contents

Version: 1.2

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Author: Mattias Henriksson, Robin Andersson, Mathias Forssén, Lisa Stenberg

This version overrides all previous versions.

1 Introduction

1.1 Purpose of application

Project Dragon aims to create a computer based version of the poker game “Texas Hold’em”. The game will follow standard Texas Hold’em rules. A game will be played by players on different computers over a network.

1.2 General characteristics of application

The application will be a desktop, standalone application with a graphical user interface for the Windows/Mac/Linux platforms.

The initial phase using Dragon involves creating a user with an account on which she can place credits. The user can then create/join tables in which the actual poker game takes place.

When joining a table the user is given an amount of chips that was decided by the user who created the table. The game follows the sequence of a standard Texas Hold’em round. The game will end for the user when she either wins or runs out chips.

Credits won will be saved on the user’s account.

The application will in game mode use a GUI represented by a table, similar to poker tables seen at casinos, viewed from above.

It is also possible to watch statistics over earlier played games.

1.3 Scope of application

A table must have between 2 and 10 players. The game should save statistics. Leaving a game before it is done should be counted as a loss. The application will not be designed to handle all possible security issues concerning network-gaming. Only one set of rules will be possible to play after.

1.4 Objectives and success criteria of the project

- It should be possible to play a full game, tournament and cash game, on any of the platforms using a (possibly simple) graphical user interface.
- The application should be able to view at least one kind of statistic regarding a users play.

1.5 Definitions, acronyms and abbreviations

All definitions and terms regarding the core poker game are as defined in traditional Texas Hold'em vocabulary.

- GUI, Graphical User Interface
- Java, platform independent programming language

2 Requirements

2.1 Functional requirements

The user should be able to:

1. Join a quick game without the need to create an account.
2. Create an account containing a given amount of credits.
3. Create / join a table. This involves:
   a) Setting game mode (tournament or cash game).
   b) Setting table options.
   c) Possibly inviting players.
4. Handle a poker round. This involves:
   a) Different forms of betting money such as call, raise, all in and check.
   b) Folding your cards
5. Leave a table
6. Exit the application
7. Watch statistics over earlier played games.
8. Add credits to the account

2.2 Non-functional requirements

2.2.1 Usability

The application should be easy to both understand and use. It should also be very accessible in the sense that it should not force the user to commit itself to playing for a longer of period of time once she has started the application.

2.2.2 Reliability

It should be possible to go through an entire login session i.e log in to the client, join or create a table, play a full game and then logout from client, without experiencing any game breaking bugs.

2.2.3 Performance

The user shouldn't have to experience a delay any larger than at most two seconds after having initiated some functionality within the application.

2.2.4 Supportability

The application must be implemented in such a way that makes it easy to add more features such as other ways of playing Texas Hold'em or even other type of card games.

There should be automated tests that verify the different use cases.

2.2.5 Implementation

The application will use the Java environment and all hosts must have JRE installed and configured. The application needs to be installed on all hosts where it will run.

2.2.6 Packaging and installation

The application will be distributed through a GIT repository which will contain all of the necessary files to compile and run the application. It will also contain a README-file that explains what has to be done to be able to start the application.

2.2.7 Legal

There should be no legal issues with the application.

2.3 Application models

2.3.1 Use case model

See 3.1.

2.3.2 Use cases priority

High
User Action

Game Action
Assign Active Player
Bet
Show River
Show Turn
Show Flop
Show Table Card
Raise
Fold
Call
Check
Get Cards

Medium:
All-in
Dealer Action
Distribute Chips
Big Blind
Small Blind
New Round
Blind
Showdown

Low:
Join Table
Dragon
Exit Application
Buy In
Run Game
Set Table Options
Create Account
Game Over
Create Table
Invite Players

2.3.3 Domain model

See 3.2.

2.3.4 User interface

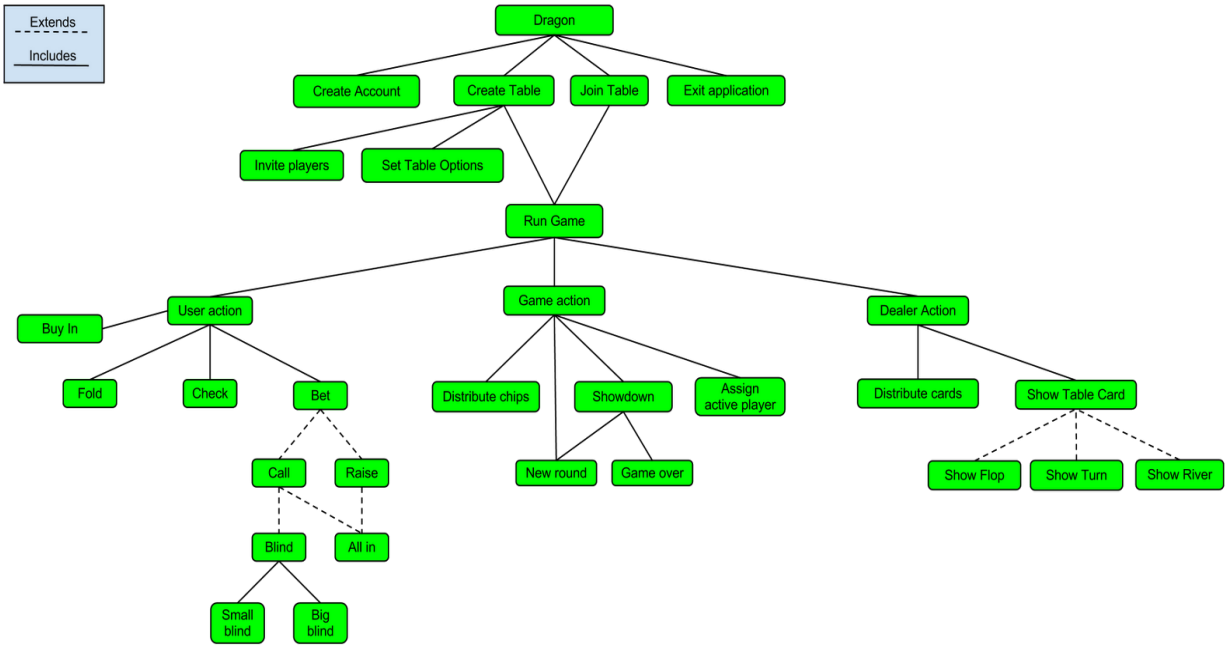
See 3.3.

2.4 References

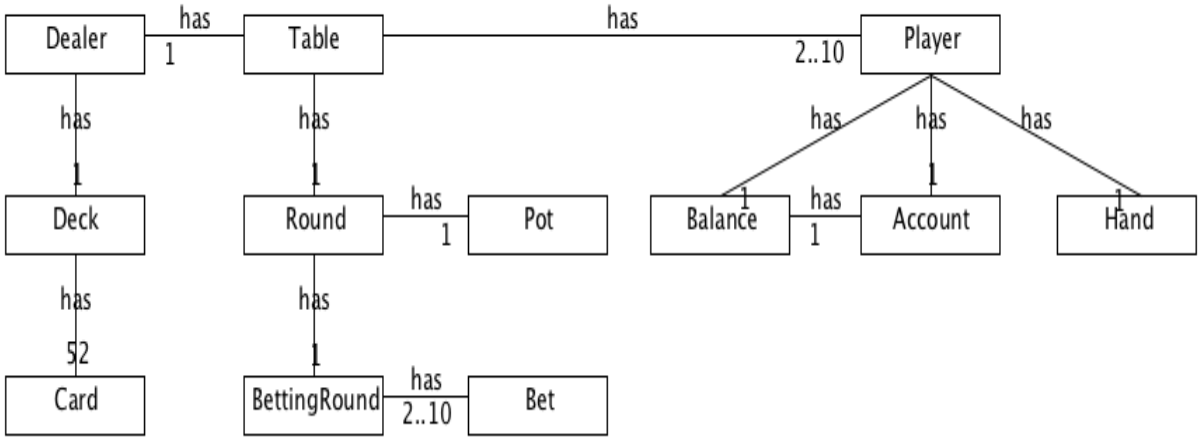
NA

3 APPENDIX

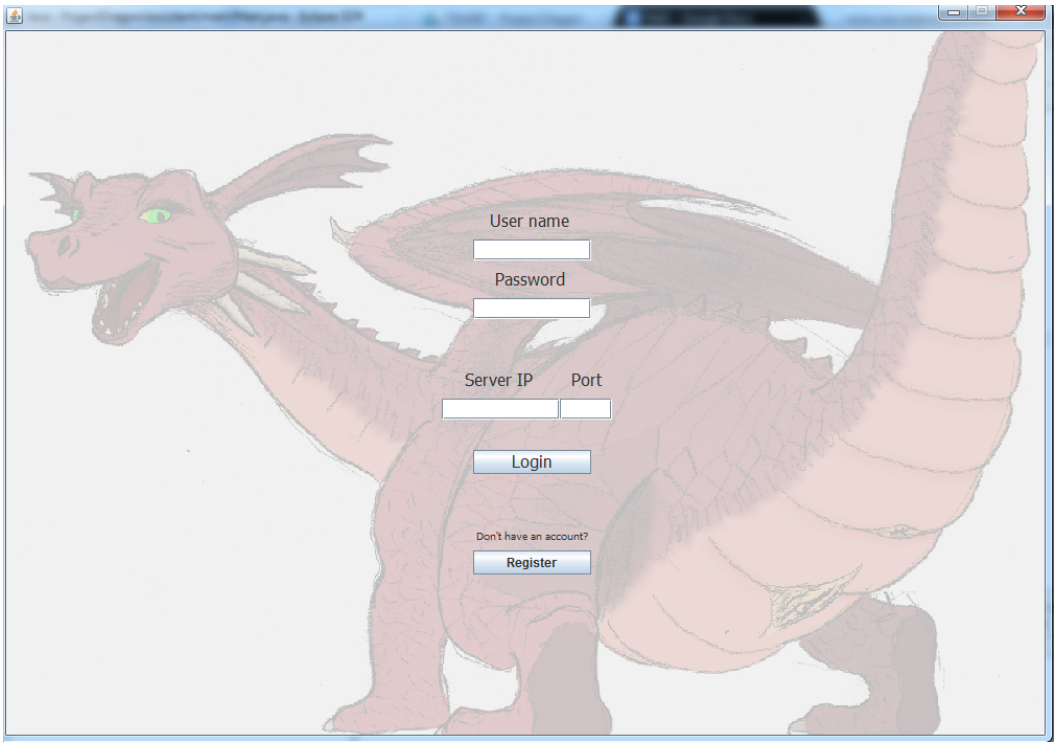
3.1 Use case model

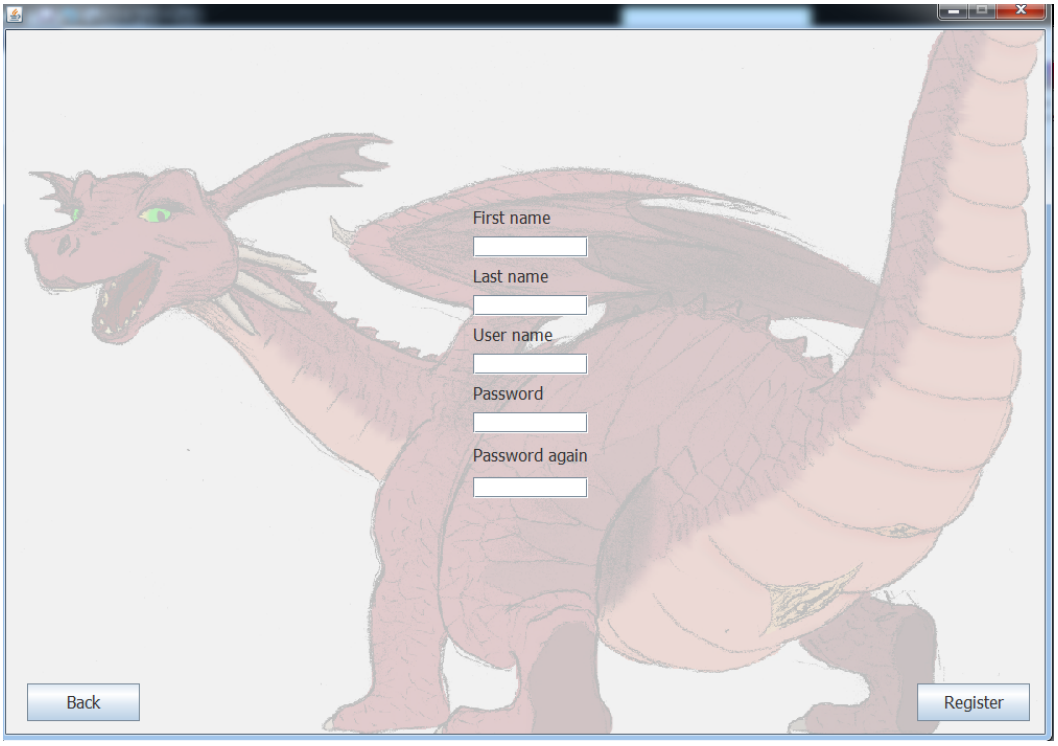


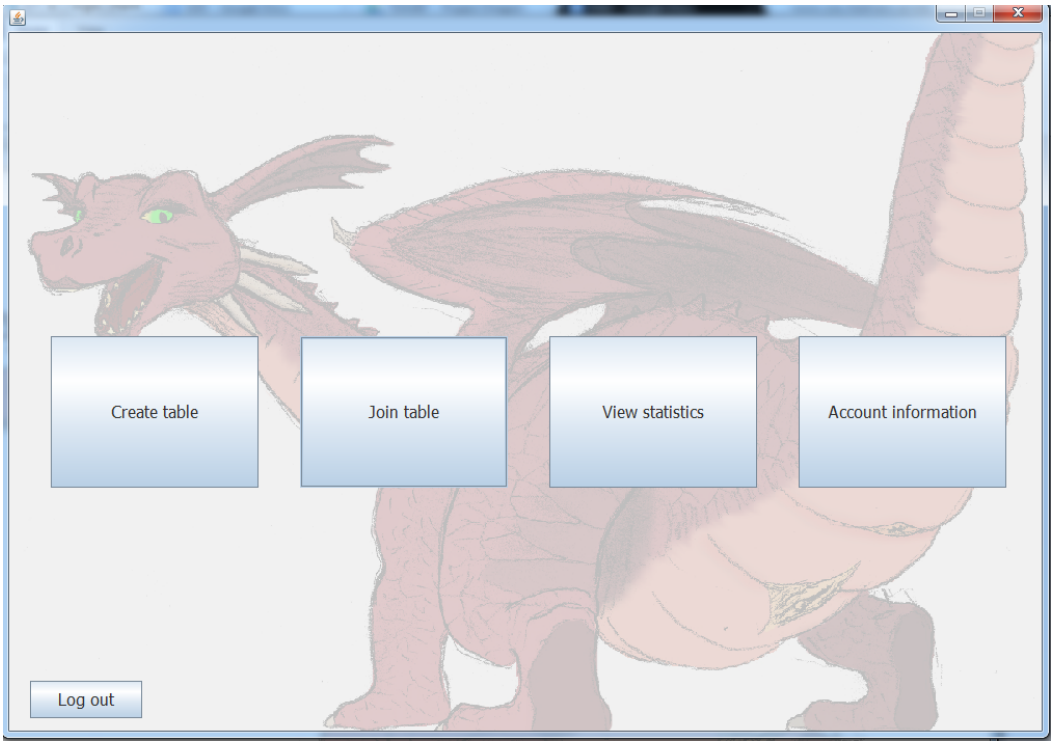
3.2 Domain model

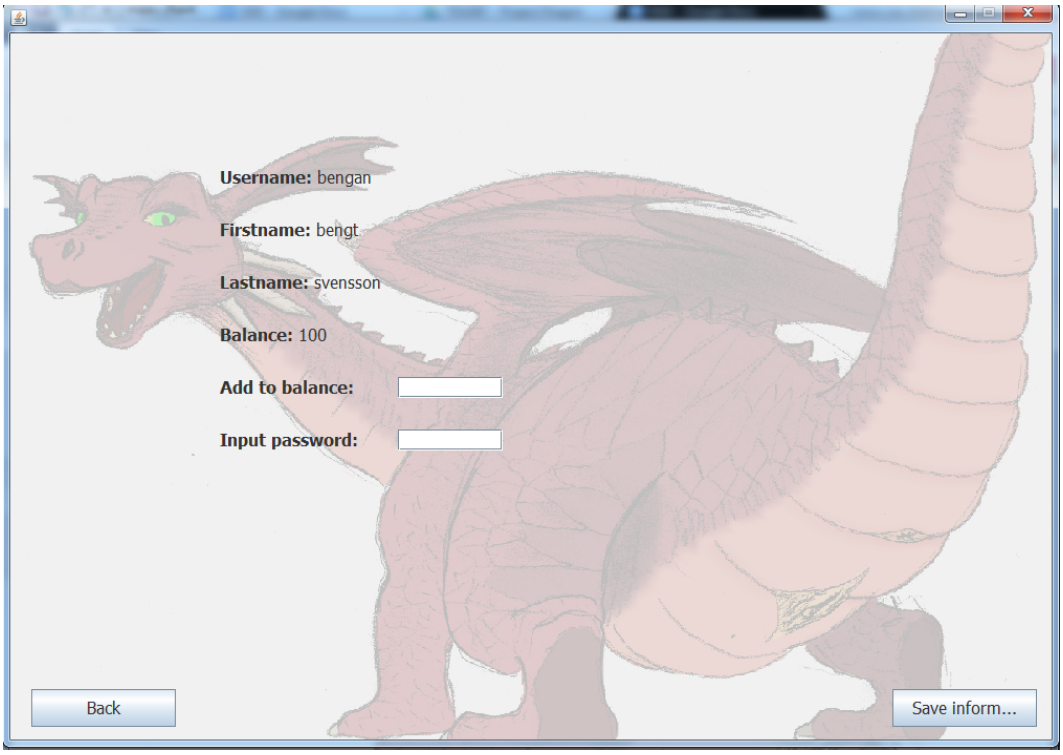


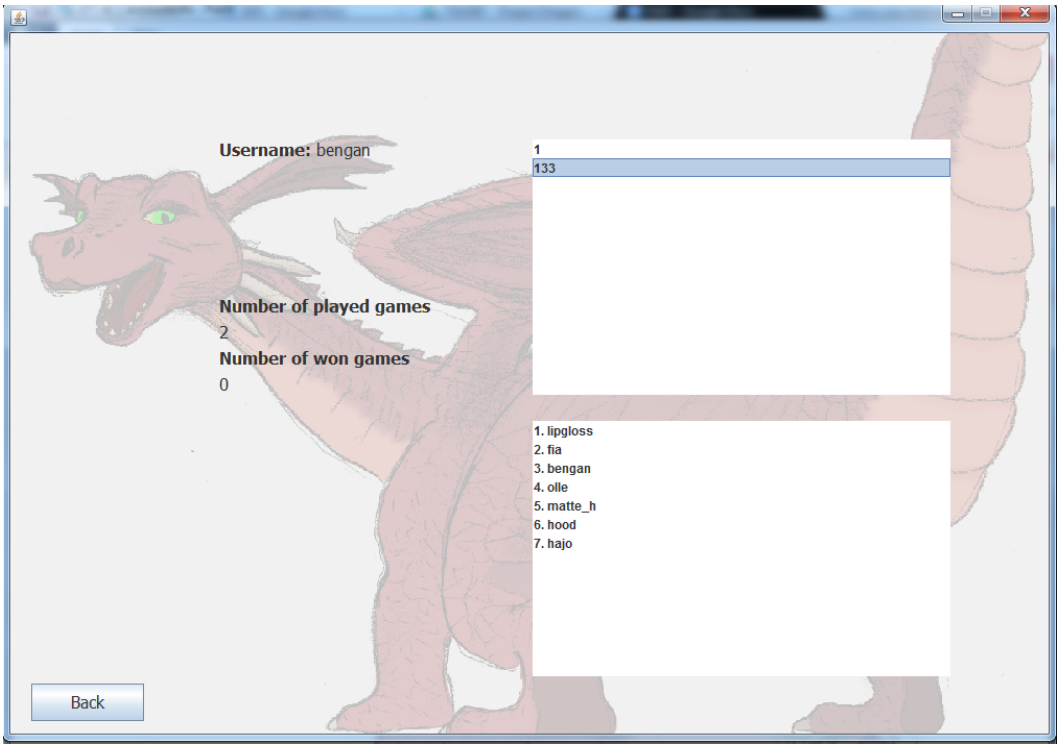
3.3 User interface

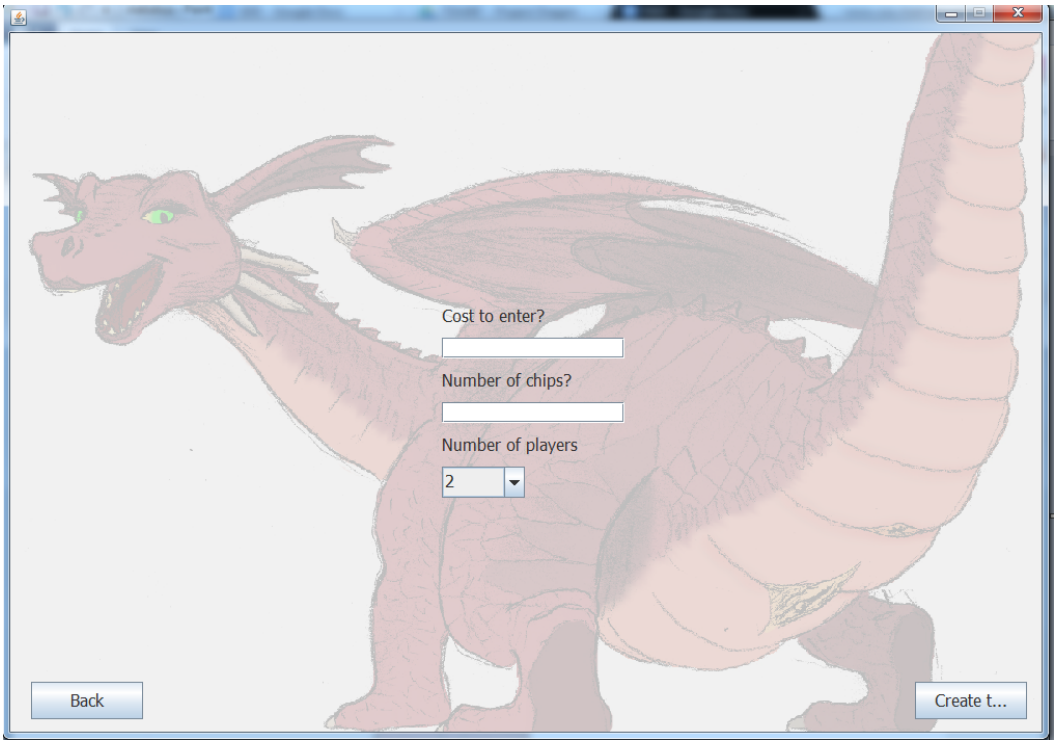





Create table
Join table
View statistics
Account information
Log out


Username: bengan
Firstname: bengt
Lastname: svensson
Balance: 100
Add to balance:
Input password:
Back
Save inform...


Username: bengan
1
133
Number of played games
2
Number of won games
0
1. lipgloss
2. fia
3. bengan
4. olle
5. matte_h
6. hood
7. hajo
Back


Cost to enter?
Number of chips?
Number of players
2
Back
Create t...

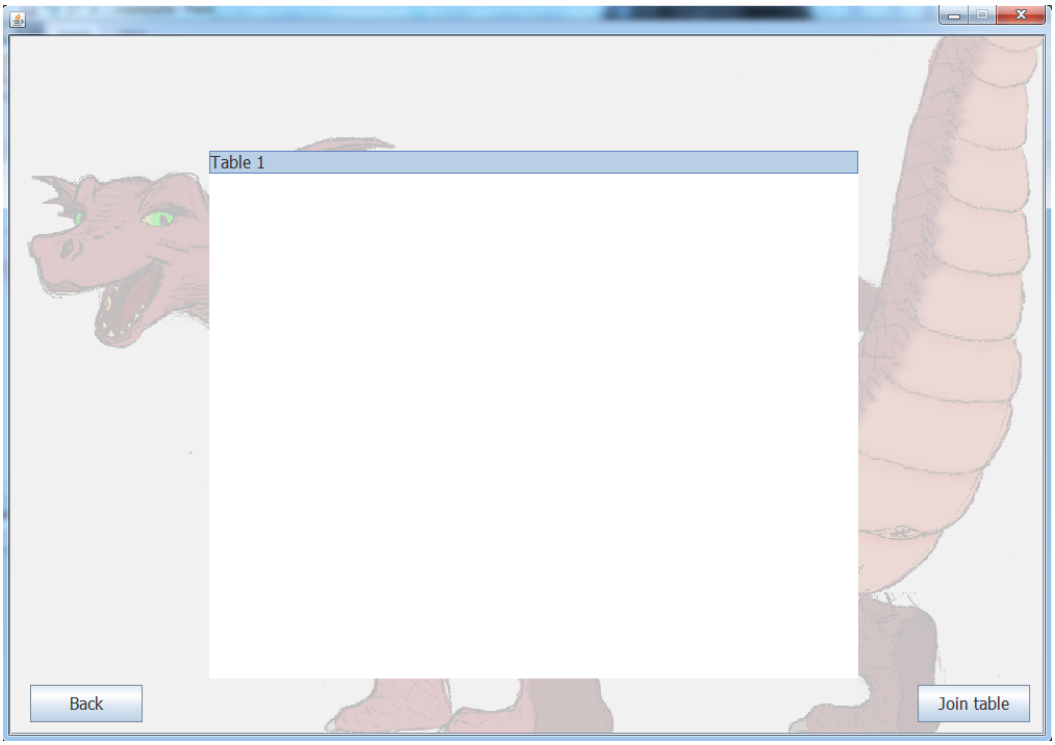
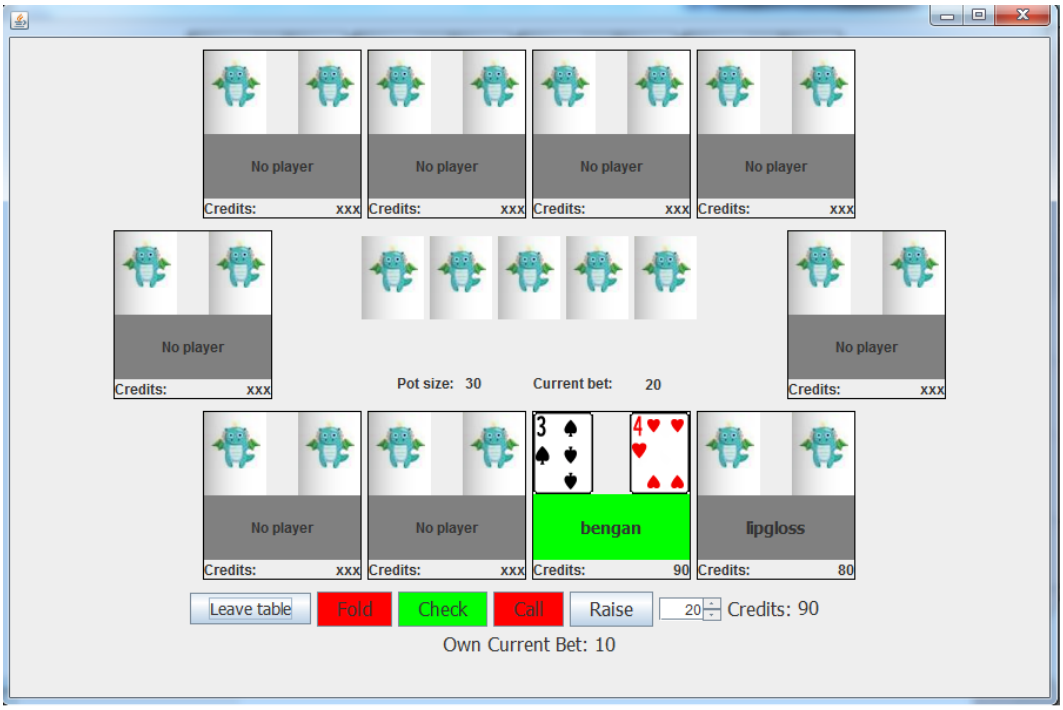


Table 1
Back
Join table


No player
Credits: xxx
Pot size: 30
Current bet: 20
bengan
Credits: 90
lipgloss
Credits: 80
Leave table
Fold
Check
Call
Raise
20
Credits: 90
Own Current Bet: 10