Course Project Documentation

Project Report

Stock Exchange Xtravanganza

TEAM ID-485

Ayush Agarwal 140040068
Sakshi Chetule 140110038
Tarun Bajaj 140040058
Chandra Prakash Meena 140D070043

Submitted for CS 101 (Prof. KAVI ARYA) Project
Report 18 April, 2015

Table of Contents

Introduction

Stock Exchange Xtravaganza is a board game to capture the excitement and reality of making money on the Stock Market through main moves of Share Transactions. Share dealing as easy as Child's play-no knowledge of stock markets needed. A game of skill where no dice is required, only make your own decisions. It is also highly interactive as your decisions will affect the other player.

Problem Statement

The aim is to create a board game to capture the excitement and reality of making money on the Stock Market through main moves of Share Transactions.

This game of skill where no dice is required, only make your own decisions. It is also highly interactive as your decisions will affect the other player.

We aimed to apply the use of class, use of strings and the advanced use of most basic functions like loops, initCanvas, etc.
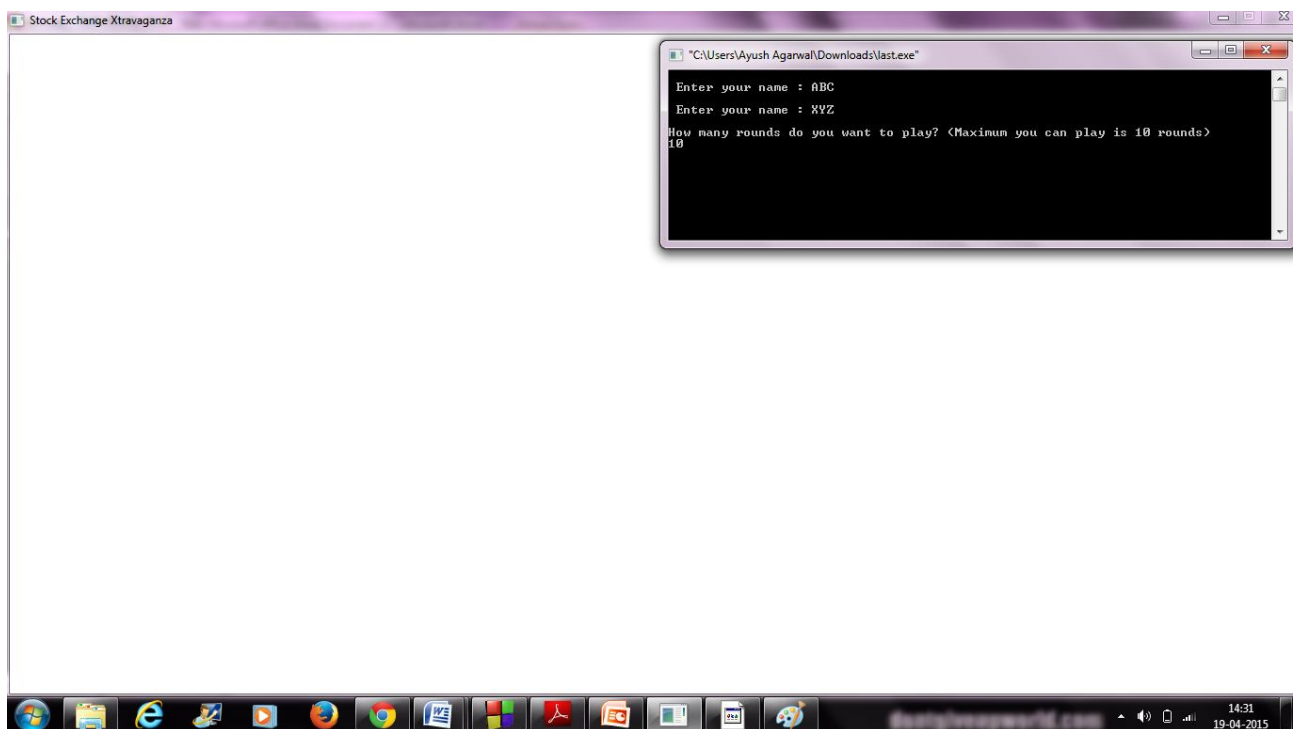
Requirements

Hardware Requirements

- The game is played giving commands with a keyboard.

Software Requirements

- Code Blocks compiler

Implementation

3.1.1 Choice on number of bargain rounds- the user is provided with a choice on number of rounds to be played.

3.1.2 Choice to trade shares in any of the six companies (unless the company is bankrupt) in each chance. The user can also pass his chance if he does not wish to trade.

3.1.3 Shares owned by the user and his opponent are displayed in the board corresponding to the respective company.

3.1.4 Net property-there is a display of the total cash owned by the user (both in hand and in shares)

3.1.5 Cards displayed- The cards distributed to the user are displayed in his screen while those distributed to his opponent is hidden from him.

3.1.6 Price per share of a company displayed- The ongoing price per share of a company in each round is displayed. At the end of each round, the after net addition/subtraction, the price per share of each company is displayed.

3.1.7 The maximum amount of shares that the user can buy is displayed on selecting the company.
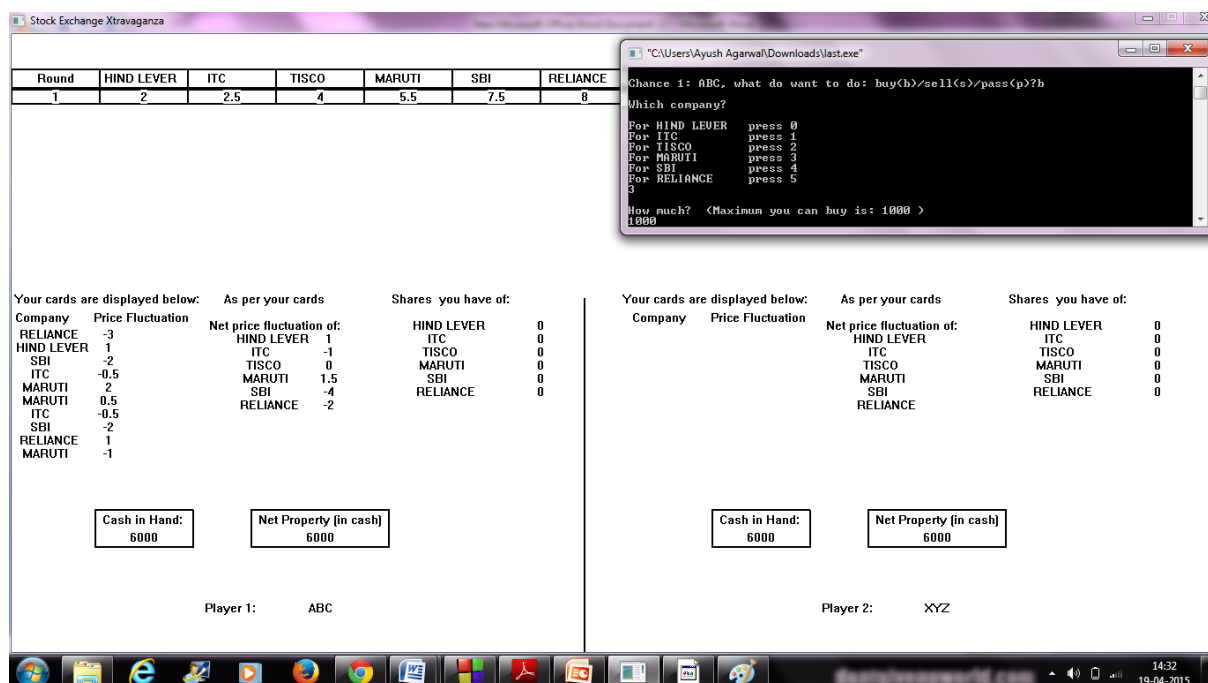
Testing Strategy and Data

The following window appears if we run the game:

The game is made in two versions, i.e. basic and advanced version. Advanced version of the game also includes windfall cards.
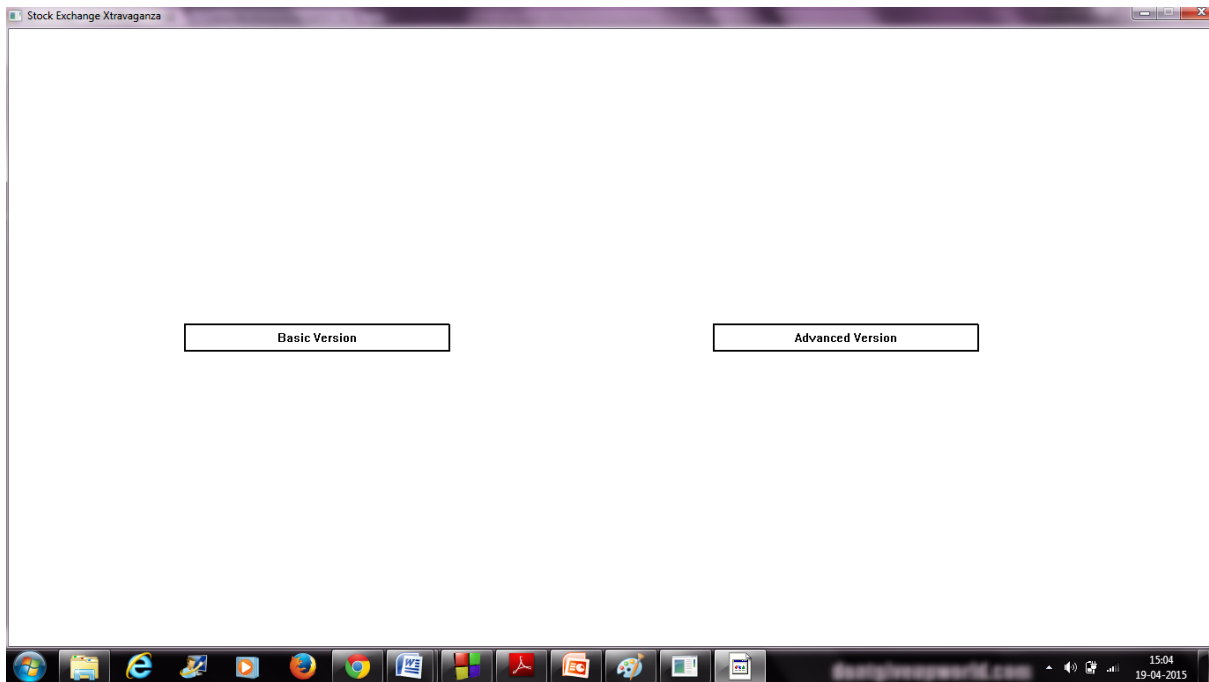
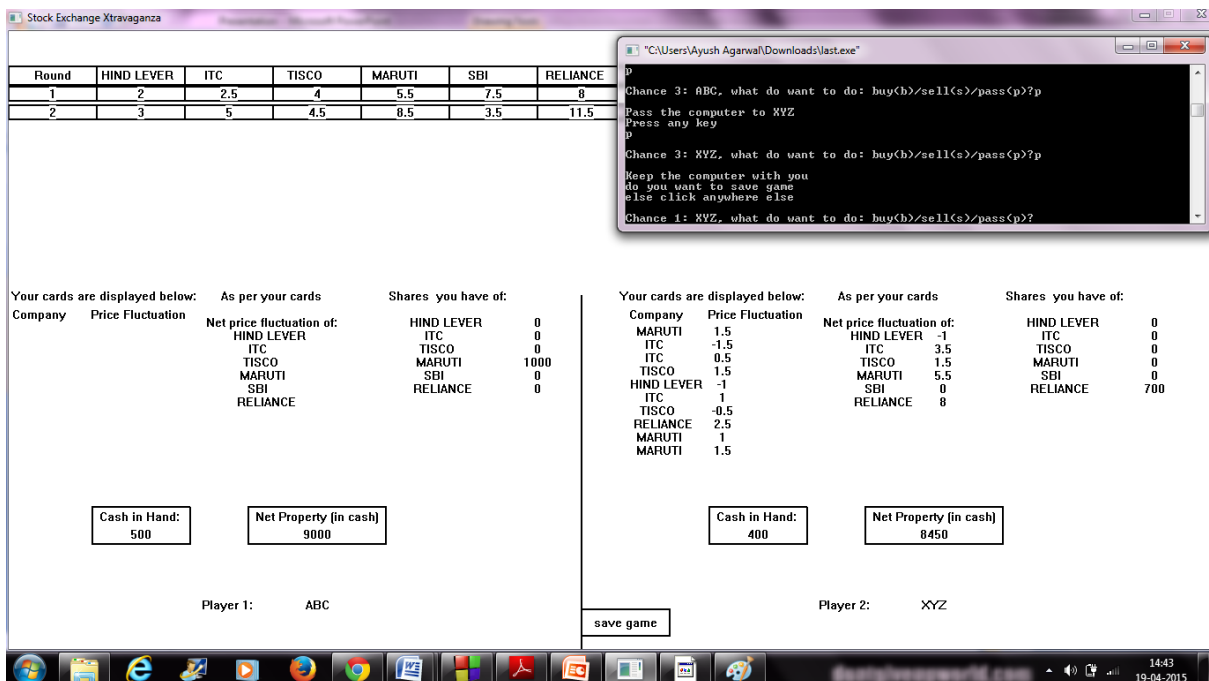**Fig: Window asking which version user wants to play**

Fig: Basic version of game in progress.

Round	HIND LEVER	ITC	TISCO	MARUTI	SBI	RELIANCE
1	2	2.5	4	5.5	7.5	8

"C:\Users\Ayush Agarwal\Documents\CS101\Stock Exchange Xtravaganza (Advanced Version with ...

```
Enter name of player 1: ABC
Enter name of player 2: XYZ
How many rounds do you want to play? (Maximum you can play is 10 rounds)
10
Chance 1: ABC, what do want to do: buy(b)/sell(s)/pass(p)?
```

Your cards are displayed below: As per your cards

Company	Price Fluctuation	Net price fluctuation of:		Shares you have of:	
RELIANCE	-1	HIND LEVER	0	HIND LEVER	0
MARUTI	2	ITC	-1.5	ITC	0
TISCO	-1	TISCO	0	TISCO	0
Currency-10%		MARUTI	2	MARUTI	0
Currency-10%		SBI	4	SBI	0
SBI	1.5	RELIANCE	-0.5	RELIANCE	0
ITC	-1.5				
RELIANCE	0.5				
SBI	2.5				
TISCO	1				

Cash in Hand:	Net Property (in cash)
6000	6000

Player 1:   ABC

Your cards are displayed below: As per your cards

Company	Price Fluctuation	Net price fluctuation of:		Shares you have of:	
		HIND LEVER	0	HIND LEVER	0
		ITC	0	ITC	0
		TISCO	0	TISCO	0
		MARUTI	0	MARUTI	0
		SBI	0	SBI	0
		RELIANCE	0	RELIANCE	0

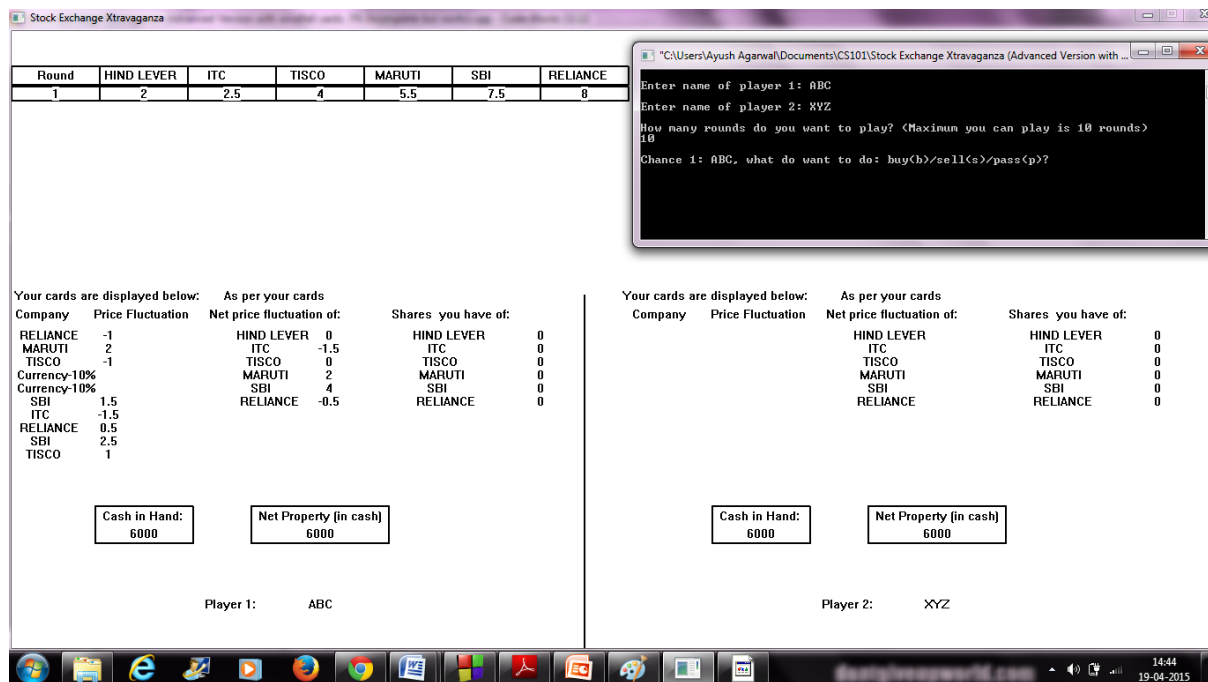| Cash in Hand:	Net Property (in cash)
6000	6000

Player 2:   XYZ

Fig: Advanced version of game in progress.

Discussion of System

What worked as planned?

1. Hiding cards and net fluctuation of player 1 from player 2.
2. Rotation of 1st chance after each round.
3. Choice on no. of bargain rounds.
4. Display net property.
5. Display cash in hand.

What we added more than discussed in SRS?

1. We created an advanced version of the game which includes windfall cards like:

- Share Suspended
- Debenture
- Right Issue
- Currency +10%
- Currency -10%
- Loan Stock

What we could not achieve

We could not use socket programming to enhance multiplayer gaming.

Future Work

We can use better graphics to make the game more user friendly.

Also, we can use socket programming to enhance multiplayer gaming.

Conclusion

Ours was a relatively simple project with nice applications of the taught topics in the course CS-101 .We have come up with correct usage of functions , structures , classes, initCanvas and made the most out of the simplecpp graphics. Concluding, it was enjoyment to work on such a nice project and the project helped us learn a lot and apply practically what was taught.

References

We have used just a single source for the whole project and that is:
"**AN INTRODUCTION TO PROGRAMMING THROUGH C++**"
BY ABHIRAM RANADE