SRM UNIVERSITY

Introduction to Programming Using

C

Project Report on

"Tic-Tac-Toe"

Submitted in partial fulfillment for the award of the degree in

BACHELOR OF TECHNOLOGY

IN

COMPUTER SCIENCE AND ENGINEERING

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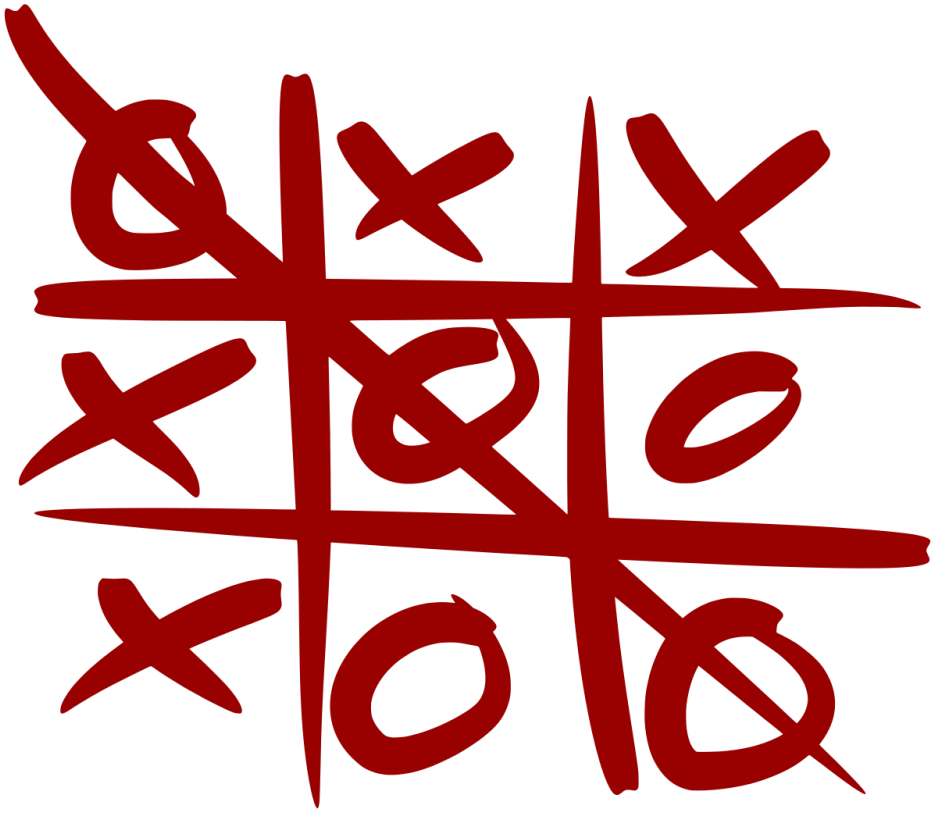
CONTENTS

CHAPTER 1

AIM:

To develop well known board game Tic-Tac-Toe for two players.



CHAPTER 2

Technologies used

2.1 Hardware Requirement:

HARD DISK: HDD OR SDD

PROCESSOR: I5, I7or I9

2.2 Software Requirement:

Language Used: C

Operating System: Windows 7,8,9,10,11

CHAPTER 3

ABSTRACT

Tic-Tac-Toe Game is a very popular game played by two participants on the grid of 3 by 3. A special symbol (X or O) is assigned to each participant to indicate that the slot is covered by the respective participant. The winner of the game is the participant who first cover a horizontal, vertical or diagonal row of the board having only their symbols. This paper proposed a winning strategy of Tic-Tac-Toe game. The players can make their own choices. Any of the player can play first by their choice. That will lead to win or prevent opponent to make a winning move. This is extended work of the paper "The Winner Decision Model of Tic-Tac-Toe Game by using Multi-Tape Turing Machine"

CHAPTER 4

INTRODUCTION

- Tic-tac-toe also known as noughts and crosses is a paper and pencil game for two players.
- who take turns making the spaces in 3x3 grid traditionally.
- The player who succeeds in placing three of their marks in a horizontal, or vertical or diagonal row wins the game.
- This means that it is deterministic, with fully observable environments in which two agents act alternately and the utility values at the end of the game are always equal and opposite.

CHAPTER 5

ALGORITHM

- Step 1: START
- Step 2: Check winning move for player 1(X).If there is such move, take it and go to step 7.Else go to step 3.
- Step 3: Check winning move for player 2(O). If there is such move, then block the player and go to step 7.Else go to step 4.
- Step 4: If there are corner spaces (i.e 1,3,7,9),take it and go to step 7.Else go to step 5.
- Step 5: If there is center position, take it and go to step 7.Else go to step 6.
- Step 6: If there are side positions(i.e 2,4,6,8),take it and go to step 7.Else go to step 8.(since there are no spaces left to move).
- Step 7: Ask player to take a move and go to step 2.
- Step 8: END.

CHAPTER 6

SAMPLE INPUT

Player 1 enter a number : 1

Player 2 enter a number : 2

Player 1 enter a number : 3

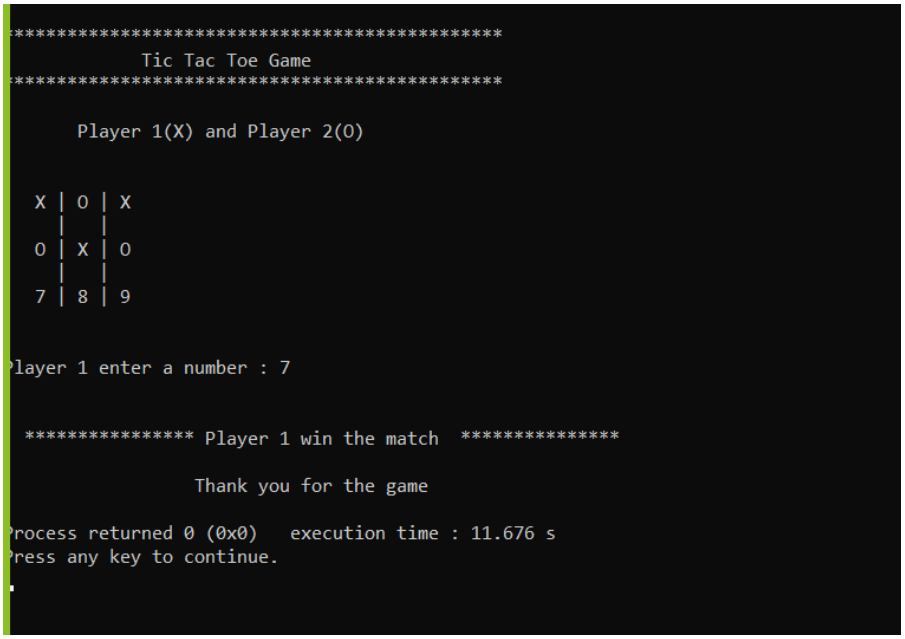
Player 2 enter a number : 4

Player 1 enter a number : 5

Player 2 enter a number : 6

Player 1 enter a number : 7

SAMPLE OUTPUT



SAMPLE INPUT

Player 1 enter a number : 1

Player 2 enter a number : 3

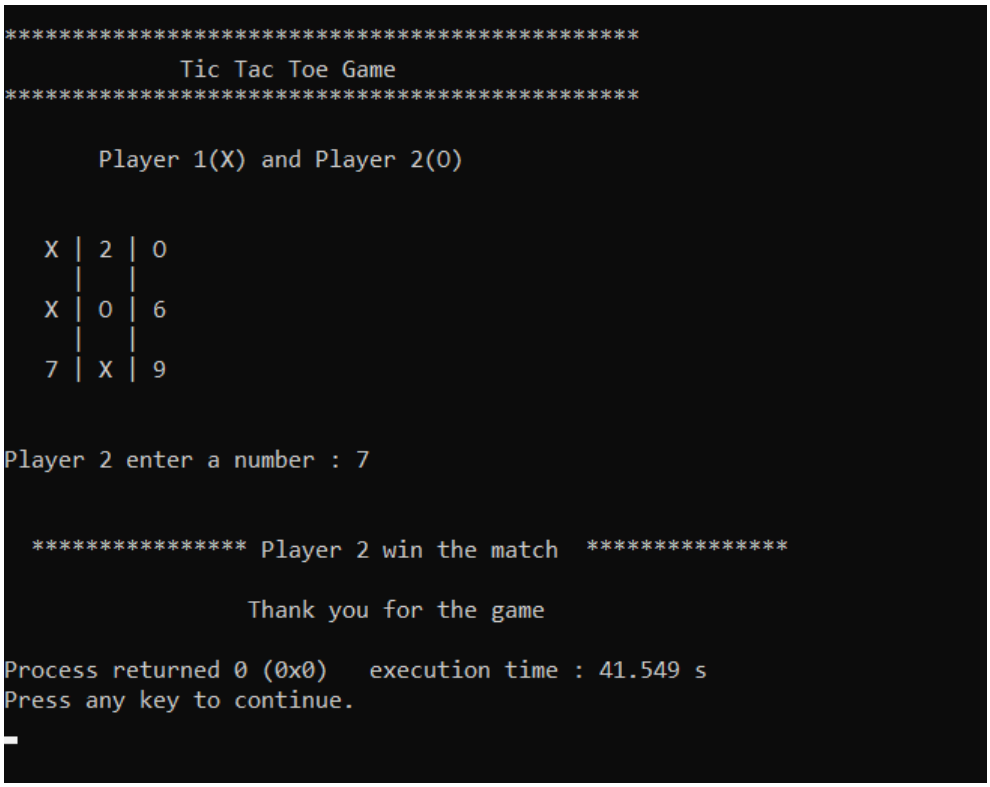
Player 1 enter a number : 4

Player 2 enter a number : 5

Player 1 enter a number : 8

Player 2 enter a number : 7

SAMPLE OUTPUT



CHAPTER 7

END USER

By this project Tic-Tac-Toe everyone can play this game without any age restrictions. Because of its simplicity. It is a time pass game.

CHAPTER 8

CONCLUSION

By this mini project we got an idea on implementing of C language . we got idea on the concepts like Functions, Else if, Decision making.