Chance-It

User Manual

Version 1.0

CMMS Systems

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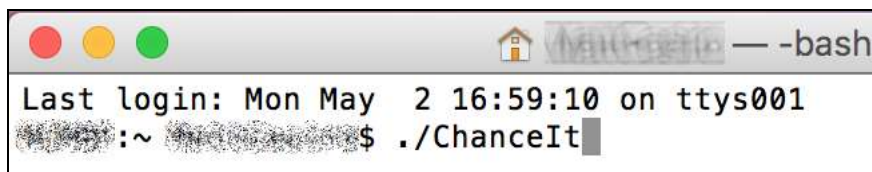Melissa Page
Sheryll Tabamo

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Game Rules

1. A game of Chance-It involves two players. The object of the game is to be the player with the highest score after completing 20 rounds of play.
2. During a round, each player takes a turn. A player's total score is the sum of their turn scores. At the beginning of the game, each player rolls a die: high goes first.
3. At the beginning of their turn, a player rolls two six-sided dice and records the sum, called their first roll.
4. After their first roll, a player must decide whether to stop or continue (i.e., chance-it).
5. If a player decides to stop, then their turn ends and their score for that turn is the sum of all rolls during that turn; if the player decides to continue, they roll the dice again.
6. If in re-rolling the dice, a player re-rolls their first roll (any combination of dice that results in the same sum), then their turn ends and their score for that turn is zero; otherwise, go to step 5.

Launching the Program

Opening the Game
Chance-It is run through 'terminal' on a Linux operating system.
1. Open the terminal for your operating system
2. Navigate to the folder where the Chance-It executable is saved
3. Run the file with the command: ./ChanceIt

Getting Started

When the game loads, the rules will display. Ensure you are familiar with the rules before proceeding. Press enter to show the main menu.

Commands on the main menu include:

- **L**   Local Play Mode   Play locally against another player or an AI player
- **N**   Network Play Mode Play manually or use an AI to compete online
- **V**   View High Scores   See the top ten highest local human scores
- **R**   Rules   Display the game rules
- **E**   Exit   Exit the game application

The **V** command will display the high score list:

```
Top Ten Scores
----------------------------------
1  | YYYY-MM-DD | Name   | 65403
2  | YYYY-MM-DD | Name2  | 1239
3  | YYYY-MM-DD | Name2  | 1238
4  | YYYY-MM-DD | Name2  | 1237
5  | YYYY-MM-DD | Name2  | 1236
6  | YYYY-MM-DD | Name2  | 124
7  | YYYY-MM-DD | Name2  | 123
8  | YYYY-MM-DD | Name2  | 122
9  | YYYY-MM-DD | Name2  | 12
10 | YYYY-MM-DD | Name2  | 5
----------------------------------
Press Enter to return to the Main Menu.
```

Starting a Game

Local Play Mode

After selecting a local game, you will choose whether to play against another human opponent, or against a computer-controlled AI.

- **S** Single Player   Play locally against a computer controlled AI
- **M** Multiplayer   Play against another human opponent
- **P** Previous Menu   Return to the previous game menu
- **E** Exit   Exit the game application

```
Local Play Mode
-----------------------------------

Select mode:

(S)ingle Player
(M)ultiplayer

(P)revious Menu
(E)xit

-----------------------------------
```

If you select Single Player, you will be prompted to enter your name, if you select Multiplayer, both players will be prompted to enter names. Once names are entered, the game will start.

```
Local Play Mode
-----------------------------------

Player1 - enter name:
**user input**

Player2 - enter name:
**user input**

-----------------------------------
```

Network Play Mode

After selecting a network game, you will choose whether to play the game manually, or let a computer-controlled AI play on your behalf.

- **H**   Human Player   You will control the game decisions
- **C**   Computer Player   A computer will control the game decisions
- **P**   Previous Menu   Return to the previous game menu
- **E**   Exit   Exit the game application

```
Network Play Mode
------------------------------------

Who should control the game?

(H)uman Player
(C)omputer player

(P)revious Menu
(E)xit


------------------------------------|
```

If you select Human Player, you will be prompted to enter your name. After entering your name (if required) you will be taken to the network connection screen.

```
Network Play Mode
------------------------------------

Enter Server Information:

Port:
**user input**

Address:
**user input**


------------------------------------
```

Playing a Game

Taking a Turn

When it is the player's turn, the dice are rolled and the sum recorded as "First roll". The player's goal is to roll the dice as many times as possible (earning points based on the sum of the dice every time) without repeating the sum of the First roll. If you repeat the sum from the first roll then the turn ends and no points are recorded.

- **R**   Roll Dice   The dice are rolled and the numbers summed
- **S**   Stop Current Turn   Stops current turn and adds points earned to total
- **P**   Probability   Display the probability of re-rolling the first roll
- **H**   Help   Display a help menu in-game
- **F**   Forfeit   Forfeit current game and return to the main menu

```
Current Round: 2
-----------------------------------
First roll: 5
Round score: 6

Last roll: 1 + 5 = 6
 -------      -------
|       |    | o   o |
|   o   |    |   o   |
|       |    | o   o |
 -------      -------

Your score: 40
Opponenet score: 34
-----------------------------------
(R)oll
(S)top
(P)robability

(H)elp
(F)orfeit
```

In-Game Help Menu

The in-game help menu provides details on how to use the game commands.

```
Game Help
-----------------------------------

(R)oll           Rolls the dice and gets the sum

(S)top           Ends the current turn and adds
                 the points earned to the total

(P)robability    Displays the probability of
                 re-rolling the first roll

(H)elp           Displays this help menu

(F)orfeit        Forfeit the current game and
                 return to the main menu


-----------------------------------
Press Enter to return to the Main Menu.
```

Appendix A

Program Forward Flow Chart

```
Rules Page --Enter--> Main Menu --L--> Local Game --S--> Single Player (player vs computer) --Enter Name--> Local Game
                         |                  |                                                                    |
                         V                  M                                                                 Win/Lose
                         |                  |                                                                    |
                         v                  v                                                                    v
                    High Scores      Multiplayer --Enter Names--> Local Game                                 Game Over
                                     (player vs player)                                                          ^
                                                                                                            Win/Lose
           Main Menu --N--> Network Play                                                                         |
                                 |        \
                                 H         C
                                 |          \
                                 v           v
                          Human Player --Enter Name--> Open Connection --Connection Made--> Network Game --Win/Lose-->
                                                        To Server
```