CMP 109 - Software Design - Unit 2 - Darts Program

Pseudocode and UML - Tia Cotton - 1602119

Simplified Pseudocode

1. Get player’s name
2. Get player’s success rate
3. Get name for AI
4. Get success rate for AI
5. Play game
6. Play until either human or AI wins.

Complex pseudocode

1. Prompt user for name

1.1 set player one’s name to entered name

1. Get player’s success rate

2.1 set player one’s success rate to entered success rate

1. Get name for AI

3.1 set playertwo’s name to entered name

1. Get Success Rate for AI

4.1 set playertwo’s success rate to entered success rate

5. Set names and success rates for both players

6. Play Game

6.1 Player one goes first, throws three darts at what they would like to go for

6.2 Show player one’s score at the end of the round

6.3 Player two goes second, throws three darts at what would give them the highest score.

6.4 Carry on taking three shots each until one player reaches 0.

7. Declare Winner.

UML diagram

Player

player(string PlayerName, int success)

string PlayerName

int current\_score

int success\_rate

void setCurrentScore(int x, int y

int getCurrentScore()

string getName()

int getSuccess()

Game

Int bd[2][21]

int success\_rate

int standing\_score

int Holding\_score

int Random

bool valid\_value

player\* player1

player\* player2

int oddGuess(int j)

int takeTurn(player\*, int&)

int botTurn()

int botTakeTurn()

void playGame()

Int dartsWinner(string name)

Void init(player\*, player\*)

int throwBull(int success rate)

int throwSingle(int success\_rate, int d)

int throwDouble(int success\_rate, int d)

int throwTriple(int success\_rate, int d)

bool throw\_type\_valid(char a)

bool aim\_valid(int x)