#include <iostream>

#include <fstream>

#include "lotteryticket.h"

#include <ctime>

#include <string>

int generate\_random(int min, int max) {

return min + (rand() % (max - min + 1));

}

class LottoTicket {

private:

int id;

int lotto[15];

bool found[15];

int score = 0;

public:

LottoTicket(int id = -1) {

this->id = id;

score = 0;

for (int i = 0; i < 15; i++) {

found[i] = false;

}

}

void generateLotto(int min, int max) {

for (int i = 0; i < 15; i++) {

lotto[i] = generate\_random(min, max);

}

}

string get\_lotto() {

string str\_lotto = "";

for (int i = 0; i < 15; i++) {

str\_lotto += " " + to\_string(lotto[i]);

}

return str\_lotto;

}

int get\_id() {

return id;

}

int get\_score() {

return score;

}

bool play(int current\_lotto) {

for (int i = 0; i < 15; i++) {

if (!found[i] && lotto[i] == current\_lotto) {

found[i] = true;

score += 1;

break;

}

}

if (score == 15) {

return true;

}

else {

return false;

}

}

};

int main() {

int num\_of\_players = 5;

LottoTicket players[5];

int min = 20;

int max = 30;

int max\_rounds = 30;

int winner = -1;

bool gameover = false;

string filename = "output.txt";

ofstream fout;

srand(time(NULL));

cout << "Enter the output filename: ";

cin >> filename;

cout << "Enter the minimum number: ";

cin >> min;

cout << "Enter the maximum number: ";

cin >> max;

cout << "Enter the number of rounds to be played: ";

cin >> max\_rounds;

fout.open(filename, ofstream::app);

int i = 0;

while (i != num\_of\_players) {

LottoTicket player1(i);

player1.generateLotto(min, max);

players[i] = player1;

i++;

}

cout << "\nGenerating Lottos for all players .... \n\n";

fout << "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*";

fout << "\nGenerating Lottos for all players .... \n\n";

for (int i = 0; i < 5; i++) {

cout << "Player#" << i << players[i].get\_lotto() << "\n";

fout << "Player#" << i << players[i].get\_lotto() << "\n";

}

i = 0;

cout << "\n";

cout << "\nGame is starting\n";

cout << "Round#\tLotto\tP#p\tP#r\tP#a\tP#t\tP#h\n";

fout << "\nGame is starting\n";

fout << "Round#\tLotto\tP#y\tP#u\tP#s\tP#h\tP#a\n";

for (int i = 0; i < max\_rounds; i++) {

cout << i << "\t";

fout << i << "\t";

int current\_lotto = generate\_random(min, max);

cout << current\_lotto << "\t";

fout << current\_lotto << "\t";

for (LottoTicket& lotto : players) {

gameover = lotto.play(current\_lotto);

cout << lotto.get\_score() << "\t";

fout << lotto.get\_score() << "\t";

if (gameover) {

winner = lotto.get\_id();

break;

}

}

cout << "\n";

fout << "\n";

}

cout << "\n\tRESULT: \t";

fout << "\n\tRESULT: \t";

if (winner >= 0) {

cout << "Winner is: Player " << winner << "\n";

fout << "Winner is: Player " << winner << "\n";

}

else {

cout << "This game is a draw\n";

fout << "This game is a draw\n";

}

return 0;

}





