#include<iostream>

#include<time.h>

using namespace std;

static int harberfun(int day,static int cost,int temp\_var)

{

int arr[5][5] = {0};

int arr1[5][5] = { 0 };

for (int k = 0; k < 10; k++)

{

int i = rand() % 5;

int j = rand() % 5;

if (arr[i][j] == 0)

{

arr[i][j] = 1;

}

}

cout << "---HARBER WATER AREA---" << endl;

cout << " ";

for (int l = 0; l < 5; l++)

cout << l << " ";

cout << endl;

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

{

cout << i<<" ";

for (int j = 0; j < 5; j++)

{

cout << arr1[i][j]<<" ";

}

cout << endl;

}

int temp1=0, temp2=0;

cout << "WHERE YOU WANT TO PLACE THE POT?"<<endl;

cout << "ENTER INDEX I(0-4):";

cin >> temp1;

while (temp1 > 4 || temp1 < 0)

{

cout << "INVALID INPUT! ENTER AGAIN(0-4):";

cin >> temp1;

}

cout << "ENTER INDEX J(0-4):";

cin >> temp2;

while (temp2 > 4 || temp2 < 0)

{

cout << "INVALID INPUT! ENTER AGAIN(0-4):";

cin >> temp2;

}

if (arr[temp1][temp2] == 1)

{

cout << "YOU CAUGHT A LOBSTER..." << endl;

if (day == 4)

{

day = temp\_var;

}

if (day == 1 || day == 2 || day == 3 )

{

cout << "2$ ADDED TO COST." << endl;

cost = cost + 2;

}

else if (day == 5 || day == 6)

{

cout << "4$ ADDED TO COST." << endl;

cost = cost + 4;

}

}

else

{

cout << "POT LOST." << endl;

}

system("pause");

return cost;

}

static int open\_sea(int day,static int cost,int temp\_var)

{

int arr[10][10] = { 0 };

int arr1[10][10] = { 0 };

for (int k = 0; k < 45; k++)

{

int i = rand() % 10;

int j = rand() % 10;

if (arr[i][j] == 0)

{

arr[i][j] = 1;

}

}

cout << "---OPEN SEA AREA---" << endl;

cout << " ";

for (int l = 0; l < 10; l++)

cout << l << " ";

cout << endl;

for (int i = 0; i < 10; i++)

{

cout << i << " ";

for (int j = 0; j < 10; j++)

{

cout << arr1[i][j] << " ";

}

cout << endl;

}

int temp1 = 0, temp2 = 0;

cout << "WHERE YOU WANT TO PLACE THE POT?" << endl;

cout << "ENTER INDEX I(0-9):";

cin >> temp1;

while (temp1 > 9 || temp1 < 0)

{

cout << "INVALID INPUT! ENTER AGAIN(0-9):";

cin >> temp1;

}

cout << "ENTER INDEX J(0-9):";

cin >> temp2;

while (temp2 > 9 || temp2 < 0)

{

cout << "INVALID INPUT! ENTER AGAIN(0-9):";

cin >> temp2;

}

if (arr[temp1][temp2] == 1)

{

cout << "YOU CAUGHT A LOBSTER..." << endl;

if (day == 4)

{

day = temp\_var;

}

if (day == 1 || day == 2 || day == 3 )

{

cout << "4$ Added to Cost." << endl;

cost = cost + 4;

}

else if (day == 5 || day == 6)

{

cout << "BUT DUE TO STORMY DAY POT LOST. :(" << endl;

}

}

else

{

cout << "POT LOST." << endl;

}

system("pause");

return cost;

}

int lastday(int i,int j,static int cost,int boats)

{

if (i == 10 && j>=1)

{

char ch = ' ';

cout << "ITS YOUR LAST DAY. YOU WANNA SELL YOUR REMIANING POTS (EACH 4$ AND 1BOAT FOR 80$?(y or n):";

cin >> ch;

if (ch == 'y')

{

cost = cost + (j \* 4) + (boats\*80);

}

}

return cost;

}

int main()

{

int press = 0;

while (1)

{

cout << "PRESS 1 TO PLAY THE GAME." << endl;

cout << "PRESS 2 FOR HELP." << endl;

cout << "PRESS 3 EXIT." << endl;

cout << "PRESS:";

cin >> press;

if (press == 1)

{

int temp\_var = 0;

static int cost = 0;

int boats = 1;

for (int i = 1; i <= 10; i++)

{

//cout << "DAY NO: " << i << endl;

srand(time(0));

int day = rand() % 6 + 1;

if (day != 4)

{

temp\_var = day;

}

for (int j = 10; j > 0; j--)

{

int press1 = 0;

system("cls");

// cout << day << endl;

cout << "DAY NO: " << i << endl;

cout << "YOU HAVE " << boats << " BOAT(s)." << endl;

if (i == 10)

cost = lastday(i, j, cost,boats);

if (cost >= 1000)

{

cout << "CONGRATULATION ! YOU GET A TICKET TO GO HOME." << endl;

system("pause");

exit(0);

}

if (i == 10 && cost < 1000)

{

cout << "YOU ARE FAILED TO GET A TICKET!.TRY AGAIN..." << endl;

system("pause");

exit(0);

}

cout << "YOU HAVE NOW:" << cost << "$" << endl;

cout << "You Have " << j << " Number of Pots." << endl;

//pots

char a = ' ';

cout << "WANT ADDITIONAL POTS? 1POT WORTH 5$(y or n):";

cin >> a;

if (a == 'y')

{

int N = 0;

cout << "ENTER NUMBER OF POTS REQUIRED:";

cin >> N;

while (N < 0 && N>20)

{

cout << "INVALID INNPUT! ENTER NUMBER OF POTS REQUIRED:";

cin >> N;

}

if (cost > 5 \* N && j + N <= 20\*boats)

{

j = j + N;

cout << "PURCHASED SUCCESFUL." << endl;

cost = cost - (5\*N);

}

else

cout << "SORRY! PERCHASED ERROR." << endl << endl;

}

// else if (a == 'y' && cost <= 5)

// cout << "SORRY! YOU DONT HAVE ENOUGH MONEY." << endl << endl;

//boats

char b = ' ';

cout << "WANT ADDITIONAL BOATS? 1BOAT WORTH 100$(y or n):";

cin >> b;

if (b == 'y' && cost >= 100)

{

cout << "PURCHASED SUCCESFUL." << endl;

boats++;

j = j + 10;

cost = cost - 100;

}

else if (b == 'y' && cost <= 100)

cout << "SORRY! YOU DONT HAVE ENOUGH MONEY." << endl << endl;

cout << "PRESS 1 TO PLACE IN HARBER WATER." << endl;

cout << "PRESS 2 to PLACE IN OPEN SEA." << endl;

cout << "PRESS 0 TO QUIT THE GAME." << endl;

cout << "Press:";

cin >> press1;

while (press1 != 1 && press1 != 2 && press1 != 0)

{

cout << "INVALID INPUT. PLEASE ENTER AGAIN:";

cin >> press1;

}

if (press1 == 1)

{

cost = harberfun(day, cost,temp\_var);

}

else if (press1 == 2)

{

cost = open\_sea(day, cost,temp\_var);

}

else if (press1 == 0)

{

exit(0);

}

}

}

// system("cls");

}

else if (press == 2)

{

//help Instructions

cout << "INSTRUCTIONS" << endl;

cout << "YOU HAVE 10 DAYS TO EARN ENOUGH MONEY TO GET TICKET OF WORTH 1000$ TO GO HOME" << endl;

cout << "IT IS BY SELLING LOBSTERS." << endl;

cout << "You have been given one boat and 10 lobster pots. You can choose to place your pots in the harbor waters or out in the open sea" << endl;

cout << "A boat can carry you and 20 pots. you can make only one trip out per day to place your pots" << endl;

cout << "On a calm day in harbor each pot will earn you $2, in the open sea $8.On a stormy day in harbor you will earn $4 but out at sea you will catch nothing and lose your pot." << endl;

cout << "Additional pots can be bought for $5 each." << endl;

cout << "After your last catch on the tenth day you can sell your pots for $4 and boats for $80 each." << endl;

system("pause");

system("cls");

}

else if (press == 3)

{

exit(0);

}

else

{

cout << "INVALID INPUT!" << endl;

system("pause");

}

}

system("pause");

return 0;

}