// =============================================================================

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// Project 2

// Long-Distance Calls

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#include <iostream>

#include <iomanip>

using namespace std;

int main()

{

const double RATE\_PER\_MINUTE\_1 = 0.12, RATE\_PER\_MINUTE\_2 = 0.55, RATE\_PER\_MINUTE\_3 = 0.35;

// Start rate at time:

// 00:00 - 06:59 07:00 - 19:00 19:01 - 23:59

double startTimeOfCall, minutesOfCall, costOfLongDistanceCall;

char again[5];

// startTimeOfCall: // The start time of the call // Input by the user

// minutesOfCall: // How long the call was // Input by the user

// costOfLongDistanceCall: // The cost of the call // Calculated

// again: // If the user wants to do it again // Input by the user

//////////// Entering the Call Time Data /////////////////////////////////////////////

cout << fixed << showpoint << setprecision(2);

cout << "\tThis program calculates the cost of a long distance telephone call.\n";

cout << "Enter the time the call was dialed with a period instead of a colon;\n";

cout << "for instance: '7:00' SHOULD BE ENTERED AS '7.00'.";

do

{

cout << "\n\nStart time: ";

cin >> startTimeOfCall;

while ( static\_cast<int>(startTimeOfCall) > 23 )

{

cout << "\n\tAn invalid start time was entered.\n”;

cout << "The HOURS of the start time CANNOT BE GREATER THAN 23.\n\n";

cout << "Start time: ";

cin >> startTimeOfCall;

cout << endl;

}

While ( (startTimeOfCall - static\_cast<int>(startTimeOfCall)) > .59 )

{

cout << "\n\tAn invalid start time was entered.\n

cout << "The MINUTES of the start time CANNOT BE GREATER THAN 59.\n\n";

cout << "Start time: ";

cin >> startTimeOfCall;

cout << endl;

}

cout << "\nEnter the total time of the call in MINUTES ONLY: ";

cin >> minutesOfCall;

///////// Calculating the Cost of the Call //////////////////////////////////////////

If (startTimeOfCall <= 06.59)

{

costOfLongDistanceCall = minutesOfCall \* RATE\_PER\_MINUTE\_1;

}

else if (startTimeOfCall <= 19.00)

{

costOfLongDistanceCall = minutesOfCall \* RATE\_PER\_MINUTE\_2;

}

else

{

costOfLongDistanceCall = minutesOfCall \* RATE\_PER\_MINUTE\_3;

}

///////// Displaying the Cost of the Call ////////////////////////////////////////////

cout << "\n\nThe cost of that long distance call is: $ " << costOfLongDistanceCall << "\n\n\n";

cout << "Would you like to calculate the cost of another long distance call? (Y/N): ";

cin >> again;

} while (again[0] == 'Y' || again[0] == 'y');

cout << endl << endl;

return 0;

}