#include <iostream>

using namespace std;

int convertBinaryToDecimal();

void convertDecimalToHex();

void askUser();

void display();

char storeHexNumber[100];

size\_t counter = 0;

///\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*///

int convertBinaryToDecimal(){

int i = 1, j = 0, remainder, decimal = 0, binaryNumber;

cout << "\nPlease Input Up to 8-or-less-bits binary sequences\n";

cout << "Input a binary number: ";

cin>> binaryNumber;

while (binaryNumber > 0)

{

remainder = binaryNumber % 2;

binaryNumber = binaryNumber / 10;

decimal = decimal + remainder \* i;

i = i \* 2;

//cout << decimal << " ";

//cout << "remainder " << remainder << " ";

}

return decimal;

}

void convertDecimalToHex(){

int decimal = convertBinaryToDecimal();

int remainder;

while(decimal != 0){

remainder = decimal % 16;

decimal /= 16;

if(remainder < 10){

storeHexNumber[counter++] = remainder + 48; /// added according to ASCII character digit conversion.

}

else{

storeHexNumber[counter++] = remainder + 55; /// added according to ASCII character digit conversion.

}

}

display();

}

void askUser(){

char input;

do{

if(input != 'q'){

convertDecimalToHex();

cout << "\nTo Stop enter q ?";

cin >> input;

}

else{

break;

}

}while(input != 'q');

cout << "\nRestart The Program...\n";

}

void display(){

cout<<"The hexadecimal value: ";

for(int j = counter-1; j >= 0; j--){

cout << storeHexNumber[j];

}

cout << endl;

counter = 0; /// empty array set the counter back to 0 after each display.

}

int main(){ askUser(); return 0;}