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//Class: CSCI 1900-201

/\* Conversion \*/

import javax.swing.JOptionPane;

import java.util.Scanner;

public class ExtraCredit

{

public static void main(String args[])

{

int num = 0;

String Bin = "";

String Hex = "";

String Oct = "";

String Dec = "";

Scanner input = new Scanner( System.in );

String Conversion;

String strInput;

String strOutput;

Conversion= JOptionPane.showInputDialog(null, "\nEnter the first three letter " +

"of your conversion.\n\nPlease note only type in your input." +

"\nExample: if you want binary to decimal, only type: 'BIN'." +

"\nCasing does not matter.\n", "Conversion", -1);

Conversion = Conversion.toUpperCase();

while(!(Conversion.equals("BIN") || Conversion.equals("DEC") ||

Conversion.equals("OCT") || Conversion.equals("HEX")))

{

Conversion= JOptionPane.showInputDialog(null, "\nERROR." +

"\nEnter the first three letter of your conversion." +

"\n\nPlease note only type in your input. \nExample: if you want " +

"binary to decimal, only type: 'BIN'. \nCasing does not matter.\n",

"Conversion", 0);

Conversion = Conversion.toUpperCase();

}

if(Conversion.equals("BIN"))

{

Bin = JOptionPane.showInputDialog(null, "Enter a binary number: ",

"Conversion", -1);

/\*Binary to decimal\*/

num = Integer.parseInt(Bin,2);

/\*Binary to hexadecimal\*/

Hex = Integer.toHexString(num);

/\*Binary to octal\*/

Oct = Integer.toOctalString(num);

strOutput = "Binary to decimal: "+ num;

strOutput += "\nBinary to hexadecimal: " + Hex;

strOutput += "\nBinary to octal: " + Oct;

JOptionPane.showMessageDialog(null, strOutput, "Conversion", 1);

}

else if(Conversion.equals("DEC"))

{

Dec = JOptionPane.showInputDialog(null,"Enter a decimal number: ",

"Conversion", -1);

num = Integer.parseInt(Dec,10);

/\* Decimal to Binary \*/

Bin = Integer.toBinaryString(num);

/\* Decimal to octal \*/

Oct = Integer.toOctalString(num);

/\* Decimal to hexadecimal \*/

Hex = Integer.toHexString(num);

strOutput = "Decimal to binary: "+ Bin;

strOutput += "\nDecimal to octal: " + Oct;

strOutput += "\nDecimal to hexadecimal: " + Hex;

JOptionPane.showMessageDialog(null, strOutput, "Conversion", 1);

}

else if(Conversion.equals("OCT"))

{

Oct = JOptionPane.showInputDialog(null,"\nEnter octal number:",

"Conversion", -1);

/\*Octal to Decimal\*/

num = Integer.parseInt(Oct, 8);

/\*Octal to Binary\*/

Bin = Integer.toBinaryString(num);

/\*Octal to Hexadecimal\*/

Hex = Integer.toHexString(num);

strOutput = "Octal to decimal: " + num;

strOutput += "\nOctal to binary: " + Bin;

strOutput += "\nOctal to hexadecimal: " + Hex;

JOptionPane.showMessageDialog(null, strOutput, "Conversion", 1);

}

else if(Conversion.equals("HEX"))

{

Hex = JOptionPane.showInputDialog(null,"\nEnter a hexadecimal number:",

"Conversion", -1);

/\*Hexadecimal to Decimal\*/

num = Integer.parseInt(Hex, 16);

/\*Hexadecimal to Binary\*/

Bin = Integer.toBinaryString(num);

/\*Hexadecimal to Octal\*/

Oct = Integer.toOctalString(num);

strOutput = "Hexadecimal to decimal: " + num;

strOutput += "\nHexadecimal to binary: " + Bin;

strOutput += "\nHexadecimal to octal: " + Oct;

JOptionPane.showMessageDialog(null, strOutput, "Conversion", 1);

}

System.exit(0);

}//end main

}//end ExtraCredit