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Q4="""Binary to Decimal & Octal to Hexadecimal Conversion: Develop a
python program to convert binary to decimal, octal to hexadecimal using
functions. """
print(Q4)

def binary_to_decimal(binary_str):
    # Convert binary string to decimal integer
    return int(binary_str, 2)

def octal_to_hexadecimal(octal_str):
    # Convert octal string to decimal integer, then to hexadecimal
    (uppercase, without '0x')
    return hex(int(octal_str, 8))[2:].upper()

# Input from user
binary = input("Enter a binary number: ")
octal = input("Enter an octal number: ")

# Function calls and output
print("Decimal value of binary:", binary_to_decimal(binary))
print("Hexadecimal value of octal:", octal_to_hexadecimal(octal))
print("-----1")
Note1 = """The binary_to_decimal function uses Python's built-in int()
function with base 2 to convert binary to decimal."""
Note2 = """The octal_to_hexadecimal function converts the octal input
using base 8 and then formats the result in hexadecimal using hex()."""
Note3 = """The output presents the conversion results without prefixes
or extra formatting"""
print(Note1)
print(Note2)
print(Note3)

```

Binary to Decimal & Octal to Hexadecimal Conversion: Develop a python program to convert binary to decimal, octal to hexadecimal using functions.

Enter a binary number: 10010

Enter an octal number: 345

Decimal value of binary: 18

Hexadecimal value of octal: E5

-----1

The binary_to_decimal function uses Python's built-in int() function with base 2 to convert binary to decimal.

The octal_to_hexadecimal function converts the octal input using base 8 and then formats the result in hexadecimal using hex().

The output presents the conversion results without prefixes or extra formatting