Write a program to convert the Binary to Decimal, Octal Sample Input:

Given Number: 1101 Sample Output:

Decimal Number: 13 Octal: 15

CODE:

def binary\_to\_decimal(binary\_number):

decimal\_number = int(binary\_number, 2)

return decimal\_number

def decimal\_to\_octal(decimal\_number):

octal\_number = oct(decimal\_number).replace("0o", "")

return octal\_number

# Example usage:

given\_binary\_number = input("Enter the binary number: ")

# Check if the input is a valid binary number

if all(bit in "01" for bit in given\_binary\_number):

decimal\_result = binary\_to\_decimal(given\_binary\_number)

octal\_result = decimal\_to\_octal(decimal\_result)

print(f"Decimal Number: {decimal\_result}")

print(f"Octal: {octal\_result}")

else:

print("Invalid input. Please enter a valid binary number.")

OUTPUT:

Enter the binary number: 1101

Decimal Number: 13

Octal: 15

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