Logo DETAILS Name 300 SYEDA AALIYA FATIMA Roll Number 3BR23AI162 **EXPERIMENT** Description You work in the message encoding department of a national security agency. Every message that is sent from or received in your office is encoded. You have an integer N, and each digit of N is squared and the squares are concatenated together to encode the original number. Your task is to find and return an integer value representing the encoded value of the number. input1: An integer value N representing the number to be encoded. Output: Return an integer value representing the encoded value of the number. Sample Input: 167 Sample Output: 13649 Source Code: def encode\_number(N):  $str_N = str(N)$ encoded\_str = ""

```
def encode_number(N):
    str_N = str(N)
    encoded_str = ""

    for digit in str_N:
        squared_digit = int(digit) ** 2  # Square the digit
        encoded_str += str(squared_digit)

    encoded_value = int(encoded_str)

    return encoded_value

# Input reading
N = int(input())

result = encode_number(N)
    print(result)
```

RESULT

5 / 5 Test Cases Passed | 100 %