

AIM :- To study and implement the RSHash (Robert Sedgwick's Hash) function using Python.

PROGRAM:-

```
def RSHash(string):
    a = 63689
    b = 378551
    hash_val = 0

    for ch in string:
        hash_val = hash_val * a + ord(ch)
        a = a * b

    return hash_val % (2**32) # limit hash to 32 bits

text = input("Enter any text: ")
print("RSHash Value:", RSHash(text))
```

OUTPUT :-

... Enter any text: HELLO
RSHash Value: 2180216946

CONCLUSION :- RSHash is a simple and efficient hash function that generates a fixed-size numerical value for any input string. It is widely used for data lookup, hashing, and indexing, though it is not suitable for secure cryptographic applications.