

AIM:To study and implement the MD5 (Message Digest 5) hashing algorithm using Python.

ALGORITHM OF MD5:

1. Import the **hashlib** library.
2. Accept a message from the user.
3. Encode the input message into bytes.
4. Use `hashlib.md5()` to generate the hash value.
5. Display the hash in **hexadecimal format**.

PROGRAM:-

```
import hashlib

text = input("Enter text to hash: ")

md5_hash = hashlib.md5(text.encode())

print("MD5 Hash Value:", md5_hash.hexdigest())
```

OUTPUT :-

```
... Enter text to hash: HELLO
    MD5 Hash Value: eb61eead90e3b899c6bcbe27ac581660
```

CONCLUSION :- MD5 is a simple and efficient hashing technique that converts input data into a fixed-length digest. It ensures data integrity by verifying whether data has been altered during transmission or storage.

