### Step 1: Start

#### Step 2: Initialize Scanner for Input

2.1:Create a scanner object to receive input.

```
scanner = new Scanner(System.in)
```

# Step 3: Input Message

3.1:Prompt "Enter a message to hash" and read the input into message.

```
print("Enter a message to hash: ")
message = scanner.nextLine()
```

### Step 4: Initialize SHA-256 MessageDigest

- 4.1:Create a MessageDigest instance for SHA-256 hashing.
- 4.2:Convert message to bytes and calculate the hash.

```
md = MessageDigest.getInstance("SHA-256")
hash = md.digest(message.getBytes())
```

# Step 5: Display Hash

- 5.1:Loop through each byte in hash.
- 5.2:Print each byte as a two-digit hexadecimal string.

```
for each byte in hash:
   print byte as two-digit hexadecimal
```

# Step 6: Error Handling

6.1:Catch exceptions and print "Error" if any issue occurs during hashing.

```
if exception occurs:
    print("Error")
```

#### Step 7: Stop