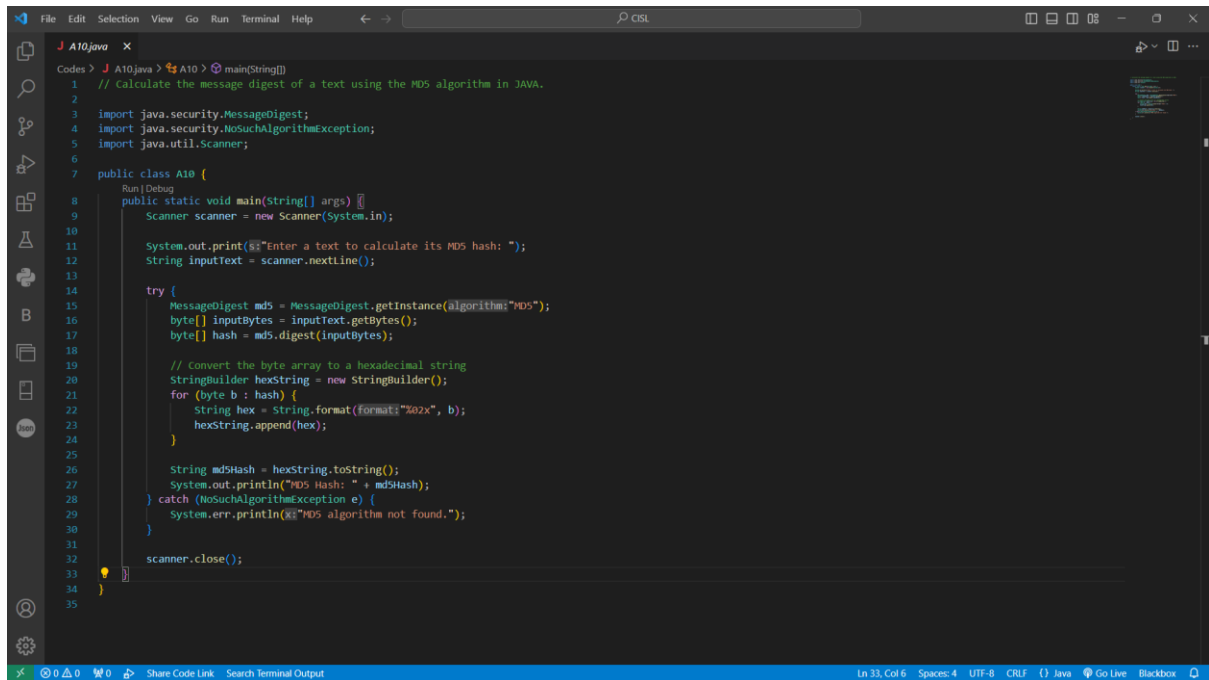


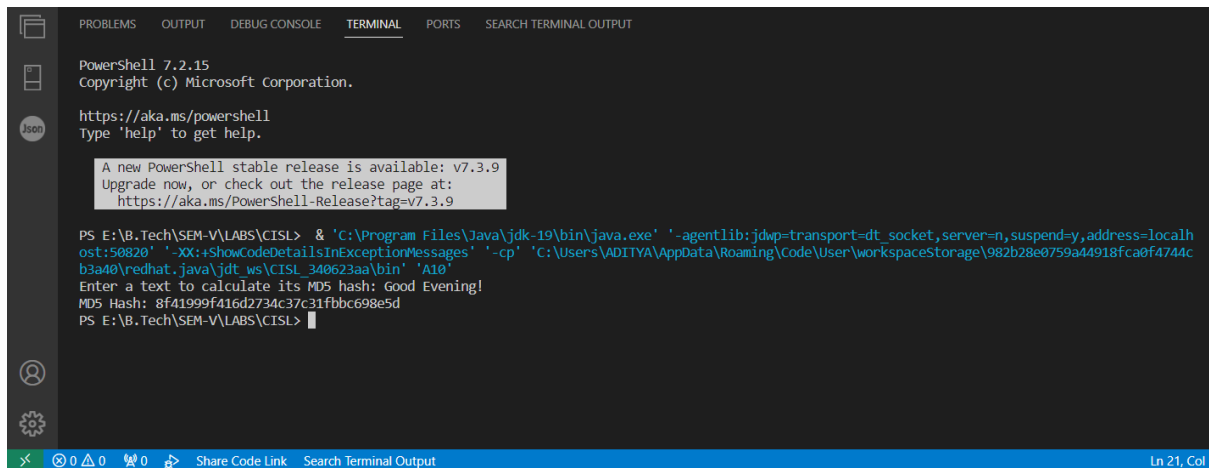
10. Calculate the message digest of a text using the MD5 algorithm in JAVA.

Code:



```
1 // Calculate the message digest of a text using the MD5 algorithm in JAVA.
2
3 import java.security.MessageDigest;
4 import java.security.NoSuchAlgorithmException;
5 import java.util.Scanner;
6
7 public class A10 {
8     public static void main(String[] args) {
9         Scanner scanner = new Scanner(System.in);
10
11         System.out.print("Enter a text to calculate its MD5 hash: ");
12         String inputText = scanner.nextLine();
13
14         try {
15             MessageDigest md5 = MessageDigest.getInstance("MD5");
16             byte[] inputBytes = inputText.getBytes();
17             byte[] hash = md5.digest(inputBytes);
18
19             // Convert the byte array to a hexadecimal string
20             StringBuilder hexString = new StringBuilder();
21             for (byte b : hash) {
22                 String hex = String.format("%02x", b);
23                 hexString.append(hex);
24             }
25
26             String md5Hash = hexString.toString();
27             System.out.println("MD5 Hash: " + md5Hash);
28         } catch (NoSuchAlgorithmException e) {
29             System.err.println("MD5 algorithm not found.");
30         }
31
32         scanner.close();
33     }
34 }
35
```

Output:



```
PowerShell 7.2.15
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https://aka.ms/powershell
Type 'help' to get help.

A new PowerShell stable release is available: v7.3.9
Upgrade now, or check out the release page at:
https://aka.ms/PowerShell-Release?tag=v7.3.9

PS E:\B.Tech\SEM-V\LABS\CISL> & 'C:\Program Files\Java\jdk-19\bin\java.exe' '-agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:50820' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\ADITYA\AppData\Roaming\Code\User\workspaceStorage\982b28e0759a44918fca0f4744cb3a40\redhat.java\jdt_ws\CISL_340623aa\bin' 'A10'
Enter a text to calculate its MD5 hash: Good Evening!
MD5 Hash: 8f41999f416d2734c37c31fbbc698e5d
PS E:\B.Tech\SEM-V\LABS\CISL>
```