Practical 6

Aim: Write a program to implement MD5 algorithm to compute Message Digest.

Send.java

Code:

import java.io.\*;

import java.security.\*;

import java.util.Scanner;

public class Send {

    public static void main(String[] args) {

        System.out.println("Enter the message to be send: ");

        try {

            Scanner sc = new Scanner(System.in);

            String input = sc.nextLine();

            byte buffer[] = new byte[input.length()];

            FileOutputStream fos = new FileOutputStream("msg.txt");

            ObjectOutputStream oos = new ObjectOutputStream(fos);

            MessageDigest md = MessageDigest.getInstance("MD5");

            buffer = input.getBytes();

            md.update(buffer);

            oos.writeObject(input);

            oos.writeObject(md.digest());

            System.out.println("Message send successfully!");

        } catch (Exception e) {

            e.printStackTrace();

        }

    }

}

Output:

A black screen with white numbers

Description automatically generated

Receive.java

Code:

import java.io.\*;

import java.security.\*;

public class Receive {

    public static void main(String[] args) {

        byte dig[] = new byte[1024];

        try {

            FileInputStream fis = new FileInputStream("msg.txt");

            ObjectInputStream ois = new ObjectInputStream(fis);

            Object obj = ois.readObject();

            String data = (String)obj;

            System.out.println("Recieved Data: "+data);

            obj = ois.readObject();

            dig = (byte[])obj;

 MessageDigest md = MessageDigest.getInstance("MD5");

            md.update(data.getBytes());

            if(MessageDigest.isEqual(md.digest(), dig))

            System.out.println(data+" Retrieved Successfully!");

            ois.close();

        } catch (Exception e) {

            System.out.println("Message is corrupted");

        }

    }

}

Output:

A black background with white numbers

Description automatically generated