PROGRAM:

```
import java.io.UnsupportedEncodingException;
import java.security.MessageDigest;
import java.security.NoSuchAlgorithmException;
import java.util.Arrays;
import java.util.Base64;
import javax.crypto.Cipher;
import javax.crypto.spec.SecretKeySpec;
public class AES
{
  private static SecretKeySpec secretKey;
  private static byte[] key;
  public static void setKey(String myKey) {
    MessageDigest sha = null;
    try {
      key = myKey.getBytes("UTF-8");
      sha = MessageDigest.getInstance("SHA-1");
      key = sha.digest(key);
      key= Arrays.copyOf(key, 16);
      secretKey= new SecretKeySpec(key, "AES");
    } catch (NoSuchAlgorithmException e) {
      e.printStackTrace();
    } catch (UnsupportedEncodingException e) {
      e.printStackTrace();
    }
  }
  public static String encrypt(String strToEncrypt, String secret) {
    try {
      setKey(secret);
      Cipher cipher = Cipher.getInstance("AES/ECB/PKCS5Padding");
      cipher.init(Cipher.ENCRYPT_MODE, secretKey);
      return Base64.getEncoder().encodeToString(cipher.doFinal(strToEncrypt.getBytes
("UTF-8")));
    } catch (Exception e) {
      System.out.println("Error while encrypting: " + e.toString());
    }
    return null;
  }
  public static String decrypt(String strToDecrypt, String secret) {
    try {
      setKey(secret);
      Cipher cipher = Cipher.getInstance("AES/ECB/PKCS5PADDING");
      cipher.init(Cipher.DECRYPT_MODE, secretKey);
      return new String(cipher.doFinal(Base64.getDecoder().decode(strToDecrypt)));
```

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    } catch (Exception e) {
      System.out.println("Error while decrypting: " + e.toString());
    }
    return null;
  }
  public static void main(String[] args) {
    System.out.println("Enter the secret key: ");
    String secretKey= System.console().readLine();
    System.out.println("Enter the original URL: ");
    String originalString= System.console().readLine();
    String encryptedString = AES.encrypt(originalString, secretKey);
    String decryptedString = AES.decrypt(encryptedString, secretKey);
    System.out.println("URL Encryption Using AES Algorithm\n ---------- ");
    System.out.println("Original URL : " + originalString);
    System.out.println("Encrypted URL : " + encryptedString);
    System.out.println("Decrypted URL : " + decryptedString);
  }
}
```

OUTPUT:

```
C:\Java\jdk1.8.0_202>javac AES.java

C:\Java\jdk1.8.0_202>java AES
Enter the secret key:
annaUniversity
Enter the original URL:
www.annauniv.edu
URL Encryption Using AES Algorithm
 -----------
Original URL : www.annauniv.edu
Encrypted URL : vibpFJW6Cvs5Y+L7t4N6YWWe07+JzS1d3CU2h3mEvEg=
Decrypted URL : www.annauniv.edu
```