

Nim: 312110291.

Nama: Nanda Rosma Anwar.

Kelas: TI.21.A.2.

Tugas Pert 11.

Tugas 1

Menggunakan Bahasa Python:

Codingan:

```
Welcome  enkripsi dan deskripsi.py X
enkripsi dan deskripsi.py > ...
1  def otp_encrypt(plaintext, key):
2      ciphertext = ""
3      for char, key_char in zip(plaintext, key):
4          result = ord(char) ^ ord(key_char)
5          ciphertext += chr(result)
6      return ciphertext
7
8  def otp_decrypt(ciphertext, key):
9      decrypted_text = ""
10     for char, key_char in zip(ciphertext, key):
11         result = ord(char) ^ ord(key_char)
12         decrypted_text += chr(result)
13     return decrypted_text
14
15     # Contoh penggunaan
16     plaintext = "RUSDI"
17     key = "CRUSH"
18
19     # Enkripsi
20     hasil_enkripsi = otp_encrypt(plaintext, key)
21     print("Plainteks:", plaintext)
22     print("Kunci:", key)
23     print("Hasil Enkripsi:", hasil_enkripsi)
24
25     # Dekripsi
26     hasil_dekripsi = otp_decrypt(hasil_enkripsi, key)
27     print("Hasil Dekripsi:", hasil_dekripsi)
```

Output:

```
Plainteks: RUSDI
Kunci: CRUSH
Hasil Enkripsi: ➡#10
Hasil Dekripsi: RUSDI
PS C:\Users\Admin\Documents\TI.21.A.2>
```

Menggunakan Bahasa Php:

Codingan:

```
enkripsi dan deskripsi2.php X
C: > Users > Admin > Documents > TI.21.A.2 > enkripsi dan deskripsi2.php > ...
1  <?php
2  1 reference
3  function otp_encrypt($plaintext, $key) {
4      $ciphertext = "";
5      $plaintextlength = strlen($plaintext);
6
7      for ($i = 0; $i < $plaintextlength; $i++) {
8          $result = ord($plaintext[$i]) ^ ord($key[$i]);
9          $ciphertext .= chr($result);
10     }
11     return $ciphertext;
12 }
13
14 1 reference
15 function otp_decrypt($ciphertext, $key) {
16     $decrypted_text = "";
17     $ciphertextlength = strlen($ciphertext);
18
19     for ($i = 0; $i < $ciphertextlength; $i++) {
20         $result = ord($ciphertext[$i]) ^ ord($key[$i]);
21         $decrypted_text .= chr($result);
22     }
23     return $decrypted_text;
24 }
25
26 // Contoh penggunaan
27 $plaintext = "RUSDI";
28 $key = "CRUSH";
29
30 // Enkripsi
31 $hasil_enkripsi = otp_encrypt($plaintext, $key);
32 echo "Plainteks: $plaintext\n";
33 echo "Kunci: $key\n";
34 echo "Hasil Enkripsi: $hasil_enkripsi\n";
```

```
// Dekripsi
$hasil_dekripsi = otp_decrypt($hasil_enkripsi, $key);
echo "Hasil Dekripsi: $hasil_dekripsi\n";
?>
```

Output:

```
Plainteks: RUSDI
Kunci: CRUSH
Hasil Enkripsi: ➡$0
Hasil Dekripsi: RUSDI
PS C:\Users\Admin\Documents\TI.21.A.2>
```

Tugas 2

Codingan:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Vernam Cipher</title>
  <style>
    body {
      background: #ee8c36;
    }
    #container {
      display: flex;
      justify-content: center;
      align-items: center;
      background: rgb(247, 247, 247);
      height: 650px;
      width: 670px;
      border-radius: 10px;
      position: absolute;
      left: 50%;
```

```
        top: 50%;
        transform: translate(-50%, -50%);
    }
    #input-container input {
        margin-bottom: 20px;
        padding: 10px;
        cursor: pointer;
    }
    #result {
        position: absolute;
        top: 90%;
        transition: 0.3s;
        height: 30px;
        box-shadow: inset 0 0 5px rgba(0, 0, 0, 0);
        inset: 0 0 10px rgba(0, 0, 0, 2);
        color: white;
        background: #bbff56;
        border-radius: 5px;
        text-align: center;
    }
    #button {
        background: #9740fa;
        height: 40px;
        border-radius: 7px;
        border: #d0be90 solid 1.5px;
        cursor: pointer;
        font: normal 1.4em/1.8em Arial, Helvetica, sans-serif;
        color: white;
        transition: 0.3s;
    }
    #button:hover #icon {
        transform: translateX(10px);
    }
    #icon {
        position: relative;
        left: 20px;
        transition: 0.3s;
    }
    h1 {
        font-family: sans-serif;
    }
    #image {
        border-radius: 50%;
        position: absolute;
```

```

        top: 7%;
        left: 39%;
    }
</style>
</head>
<body>
    <script src="https://kit.fontawesome.com/7d5b8cf8a9.js"
crossorigin="anonymous"></script>
    <div id='container'>
        <div id='input-container'>
            <h1>Vernam Cipher</h1>
            <img src='vigenerechipper.jpeg' id='image' width='160'>
            <input type='text' id='plain-input' placeholder='Plaintext'>
            <input type='text' id='key-input' placeholder='Key'>
            <button id='button'>Encrypt<i class='fas fa-arrow-alt-circle-right'
id='icon'></i></button>
        </div>
        <input id='result' disabled value='Results will appear here... '>
    </div>

    <script>
        let button = document.getElementById('button')
        let plain_input = document.getElementById('plain-input')
        let key_input = document.getElementById('key-input')
        let display = document.getElementById('result')

        function encrypt(key, plain) {
            let upperCase_key = key.toUpperCase()
            let arr_key = upperCase_key.split('')
            let new_arr_key = []
            let result = ''
            let upperCase_plain = plain.toUpperCase()
            let arr_plain = upperCase_plain.split('')

            if (plain == "" && key == "") {
                alert("You didn't input anything...")
            }

            for (var i = 0; i < arr_plain.length; i++) {
                new_arr_key.push(arr_key[i % arr_key.length])
                if (arr_plain[i].charCodeAt() !== 32) {
                    result += String.fromCharCode((arr_key[i].charCodeAt() +
arr_plain[i].charCodeAt()) % 26 + 65)
                } else {
                    result += ' '
                }
            }
        }
    </script>

```

```


    }
  }

  display.value = result
}

button.onclick = () => {
  encrypt(key_input.value, plain_input.value)
}
</script>
</body>
</html>

```

Output:



Vernam Cipher

AEDVLK