**Nama : Abdillah Mufki auzan Mubin**

**NPM : 40621100046**

**ALGORITMA DAN PEMROGRAMAN II PERTEMUAN 5**

**5.5.2 Sorting a Sequence**

|  |  |
| --- | --- |
| **Python** | **Gambar** |
| def insertion\_sort(A):    for k in range(1, len(A)):    cur = A[k]    j = k    while j > 0 and A[j-1] > cur :  A[j] = A[j-1]  j -= 1  A[j] = cur      arr = [12, 11, 13, 5, 6]  insertion\_sort(arr)  print ("Sorted array is:")  for i in range(len(arr)):  print ("%d" %arr[i]) |  |

**5.5.3 Simple Cryptography**

|  |  |
| --- | --- |
| **Python** | **Gambar** |
| **class CaesarCipher:**  **def \_\_init\_\_(self, shift):**  **encoder = [None] \* 26**  **decoder = [None] \* 26**  **for k in range(26):**  **encoder[k] = chr((k + shift) % 26 + ord('A'))**  **decoder[k] = chr((k - shift) % 26 + ord('A'))**  **self.\_forward = ''.join(encoder)**  **self.\_backward = ''.join(decoder)**    **def encrypt(self, message):**    **return self.\_transform(message, self.\_forward)**    **def decrypt(self, secret):**  **return self.\_transform(secret, self.\_backward)**    **def \_transform(self, original, code):**    **msg = list(original)**  **for k in range(len(msg)):**  **if msg[k].isupper():**  **j = ord(msg[k]) - ord('A')**  **msg[k] = code[j]**  **return ''.join(msg)**    **if \_\_name\_\_ == '\_\_main\_\_':**  **cipher = CaesarCipher(3)**  **message = "THE EAGLE IS IN PLAY; MEET AT JOE'S."**  **coded = cipher.encrypt(message)**  **print('Secret: ', coded)**  **answer = cipher.decrypt(coded)**  **print('Message: ', answer)** |  |