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File - C:\Users\Tue Hellstern\PycharmProjects\IDA_Seminar\02_datatyper.py
 1 # Datatyper
 2
 3 print("Data types")
 4 a = 10
                         # Integer
 5 b = -9
                         # Integer
 6 \text{ fl1} = 0.78
                         # Float
 7 bl1 = True
                         # Boolean
 8 st1 = "Hello World" # String
 9
10 # String
11 print(st1)
12 print(st1.upper())
13 print(st1.lower())
14
15 print(len(st1))
16
17 st2 ="from Python"
18
19 st3 = st1 + " " + st2
20 print(st3)
21
22 # Vis datatype
23 print("Positive Integer = ", a, " | ", type(a))
24 print("Negative Integer = ", b, " | ", type(b))
25 print("Float = ", fl1, " | ", type(fl1))
26 print("Boolean = ", bl1, " | ", type(bl1))
27 print("Float = ", st1, " | ", type(st1), " | ", len(
   st1))
28 print("st1[0] = ", st1[0])
29 print("st1[6:11] = ", st1[6:11])
30
31
32 # Type Conversion
33 print()
34 print("Type Conversion")
35 str1 = "15"
36 in1 = 10
37 \text{ fl1} = 10.8
38
39 print("str1 = ", str1, " | Type = ", type(str1))
40 print("in1 = ", in1, " | Type = ", type(in1))
41 print("fl1 = ", fl1, " | Type = ", type(fl1))
42
43 print("int(str1) = ", int(str1), " | Type = ", type(
                           Page 1 of 4
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43 int(str1)))
44 print("float(str1) = ", float(str1), " | Type = ",
   type(float(str1)))
45
46 print("str(int1) = ", str(in1), " | Type = ", type(
   str(in1)))
47 print("str(fl1) = ", str(fl1), " | Type = ", type(str
   (fl1)))
48
49 print("round(fl1) = ", round(fl1))
50
51
52 # Numerical Operations
53 print()
54 print("Numerical Operations")
55 \text{ num1} = 10
56 \text{ num2} = 4
57
58 print("Plus - num1 + num2 = ", num1 + num2)
59 print("Minus - num1 - num2 = ", num1 + num2)
60 print("Gange - num1 * num2 = ", num1 * num2)
61 print("Division - num1 / num2 = ", num1 / num2)
62
63 \text{ num1} += 1
64 print(num1)
65
66 \text{ num2} += 10
67 print(num2)
68
69 num1 *= 10
70 print(num1)
71
72 \text{ num2} /= 7
73 print(num2, " | Type = ", type(num2))
74
75
76 # Data Structures
77 print()
78 print("Data Structures")
79
80 # List
81 print("List")
82 list1 = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
83
```

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File - C:\Users\Tue Hellstern\PycharmProjects\IDA_Seminar\02_datatyper.py
 84 print(list1[0])
 85 print(list1[3:5])
 86 print(list1[::2])
 87 print(list1[1::2])
 88 print(list1[-1])
 89 print(list1[:-1])
 90 print(list1[::-1])
 91
 92 # List Methods
 93 list2 = [4,1,3,9,7]
 94 list3 = ['a', 'ab', 'abc', 'ab', 'ab']
 95
 96 # Sort
 97 print("Sortering")
 98 print(list2, sep=", ")
 99 print(list2.sort(), sep=", ")
100
101 print(list3)
102 print(list3.sort())
103
104 # Add
105 print()
106 print("Add")
107 print(list2)
108 list2.append(8)
109 print(list2)
110
111 # Insert
112 print()
113 print("Insert")
114 print(list2)
115 list2.insert(1, 2)
116 print(list2)
117
118 # Ændre
119 print()
120 print("Change")
121 list2[3] = 222
122 print(list2)
123
124 # Remove
125 print()
126 print("Remove")
127 print(list2)
```

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File - C:\Users\Tue Hellstern\PycharmProjects\IDA_Seminar\02_datatyper.py
128 list2.remove(9)
129 print(list2)
130
131 # Len / Antal
132 print()
133 print("Len")
134 print(list2.__len__())
135 print(len(list2))
136
137
138 # Join
139 print()
140 print("Join")
141 print(" ".join(list3))
142
143
144 # Loop List
145 print()
146 print("Loop List")
147 for x in range(len(list2)):
         print(list2[x])
148
149
150
151 # Tuple
152 print()
```

153 print("Tuple")