```
1
          Comparison of Python Operators
 2
     In Python Comparison of Relational operators compares the values. It either returns True
     or False according to the condition.
 4
     Example of Comparison Operators
 5
 6
    a) Equals to
 7
    a = 13
8
    b = 33
9
    print(a == b)
10
11
    b) Not Equals to
12
    a = 13
13
    b = 33
14
    print(a !=b)
15
16
    c)greaterthan
17
    a = 13
18
   b = 33
19
   print(a > b)
20
21 d) Lessthan
22 \quad a = 13
   b = 33
23
24
    print(a < b)</pre>
25
26
    e) Greaterthan equals to
27
    a = 13
28
    b = 33
29
    print(a >= b)
30
31
    f)Lessthan equals to
32
    a = 13
    b = 33
33
34
    print(a <= b)</pre>
35
36
     Logical Operators
37
38
     Python Logical operators perform Logical AND, Logical OR and Logical NOT operations. It
     is used to combine conditional statements.
39
40
     There are three types:
41
42
     1).Logical not
43
44
    Example
45
    a = True
    b = False
46
47
    print(not a)
48
49
    2).logical and
50
51
    Example
52
    a = True
53
   b = False
54
    print(a and b)
55
56
     3).logical or
57
58
    Example
59
     a = True
60
    b = False
61
    print(a or b)
62
63
     Bitwise Operators
64
65
     Python Bitwise operators act on bits and perform bit-by-bit operations. These are used
     to operate on binary numbers.
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66

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67
     Bitwise Operators are as follows:
 68
 69
     1.Bitwise NOT
 70
 71
     Example
 72
     a = 10
    b = 4
 73
 74 print(a ~ b)
 75
     2.Bitwise Left Shift
 76
 77
    Examplea = 10
 78 	 b = 4
 79
     print(a << b)</pre>
 80
     3.Bitwise AND
 81
 82
    Example
 83
    a = 10
 84 	 b = 4
 85
     print(a & b)
 86
 87
    4.Bitwise XOR
 88
 89 Example
 90 \quad a = 10
 91 	 b = 4
 92
     print(a ^ b)
 93
     5.Bitwise OR
 94
 95
     Example
 96 \quad a = 10
 97
     b = 4
 98
     print(a | b)
 99
100
     6. Bitwise right shift
101
     a = 10
102
     b = 4
103
     print(a >> b)
104
105
     Assignment Operators
106
      Python Assignment operators are used to assign values to the variables. This operator is
107
      used to assign the value of the right side of the expression to the left side operand.
108
109
     Example
110
     a = 5
111
112
    b = a
113
     print(b)
114
     b += a
115
    print(b)
    b -= a
116
117
     print(b)
118
    b *= a
119
    print(b)
120 b <<= a
121
     print(b)
122
     b >>= a
123
     print(b)
124
125
      Identity Operators
126
127
      In Python, is and is not are the identity operators both are used to check if two values
      are located on the same part of the memory. Two variables that are equal do not imply
      that they are identical.
128
129
      1.is -- True if the operands are identical
130
131
     Example
132
      a = 10
```

```
133
    b = 20
134
    c = a
135
136
     print(a is c)
137
138
     2.is not -- True if the operands are not identical
139
140
    Examplea = 10
141
     b = 20
142
     c = a
143
144
     print(a is not b)
145
146
     Membership Operators
147
     In Python, in and not in are the membership operators that are used to test whether a
     value or variable is in a sequence.
148
149
    in -- True if value is found in the sequence
150
151
     Example
152
    var = [10, 20, 30, 40]
     a = 20
153
154
    b = 10
155
     print (a, "in", var, ":", a in var)
156
157
                  True if value is not found in the sequence
     not in
158
     Example
159
160
     var = [10, 20, 30, 40]
     a = 20
161
162
     b = 10
163
     print (a, " not in", var, ":", a not in var)
164
165
166
```

167 168