‘**and’** and ‘**or’** operators are logical operators used to evaluate the Boolean expression.

These operators are used between exactly two conditions.

‘**AND**’ operator returns **True** when both sides of the condition returns True. And it returns **False** If either of the condition is False.

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| x = 5  y = 7  IF x >= 0 [True] **and** y <= 10 [True] -> returns **True**  IF x > 5 [False] **and** y <= 10 [True] -> returns **False** |

‘**OR**’ operator returns **True** when either side of the condition returns True. And it returns **False** If both condition is False.

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| x = 5  y = 7  IF x >= 0 [True] **or** y < 5 [False] -> returns **True**  IF x < 5 [False] **or** y >= 10 [False] -> returns **False** |

We can also combine ‘**and**’ and ‘**or**’ operators for decision making. Some of the real-world examples for using logical operation are.

**Example**: when we want to reset the password in IRS website, requirement is to validate the username or email ID, date of birth and SSN.

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| User input: Username = “abcd”, date\_of\_birth=”04/06/1990’, SSN=\*\*\*\*\*\*\*\*  IF (username != None **or** emailed != None) **and** date\_of\_birth != None **and** SSN != None:  Validate\_user();  ELSE:  Print(“Invalid user details, username or email , date\_of\_birth and SSN can not be empty”)  Exit |