DAY 2

A couple of DATE Functions to keep in mind:

1. =DAYS

This is a handy formula to calculate the number of days between two dates (so there’s no worries about how many days are in each month of the range).

Example: End Date October 12, 2015 minus Start Date March 31, 2015 = 195 days

Formula: =DAYS(A30,A29)

2. =NETWORKDAYS

This similar formula calculates the number of workdays (i.e., a five-day workweek) within a specified timeframe. It also includes an option to subtract the holidays from the total, but this must be entered as a range of dates.

Example: Start Date March 31, 2015 minus End Date October 12, 2015 = 140 days

Formula: =NETWORKDAYS(A33,A34)

5. =DATEVALUE

DATEVALUE converts the above formula into an Excel date, which is necessary if you plan to use this date for calculations. This one is easy: Select DATEVALUE from the formula list. Click the Date_Text field in the dialog box, click the corresponding cell on the spreadsheet, then click OK, and copy down. The results are Excel serial numbers, so you must choose Format>Format Cells>Number>Date, and then select a format from the list.

Formula: =DATEVALUE(H33)
Wow! day too and we are already here.

Excel IF Statement Samples

In the below Example:

Example 1:

The scores of some students are given in a table along with their names. Now for finding the Result of these students, we can use an IF statement. As you can see in the above image I have also defined the Pass and Fail criteria for these students.

Scores above 50 are considered PASS, while scores that are below or equal to 50 are considered FAIL. In this scenario we can use a formula:

=IF(B2<=50,"Fail","Pass")

Now, what this means. This formula means that first we are comparing the number at B2 i.e. 37 (Score of First Student) with our condition. This expression boils down to \( (37 \leq 50) \) i.e. Is 37 less than or equal to 50, which is True. Hence the result will be ‘Value_if_True’ (second parameter of if statement) i.e. “Fail”.
Similarly, for the second student the formula will be: $=IF(B3<50, "Fail", "Pass")$

Example an Employee Salary table of a company is shown. We have to calculate the bonus for these employees. As you can see in the image the company has a strange criteria for giving bonus to their employees.

![Image of Employee Salary table]

The criteria is, if the employee salary is greater than or equal to $8000 then bonus will be 15% of the salary otherwise the bonus will be 10% of the salary.

In this scenario we can use the Excel if Statement as: $=IF(C2>=8000, C2*15%, C2*10%)$

In this formula, first of all we check if the salary of first employee (in C2 cell) is greater than or equal to 8000. If this is true then the formula evaluates an expression (C2 * 15%) otherwise the result should be calculated by the expression (C2 * 10%).

As the salary of the first employee satisfies the condition i.e. (9,735 >= 8000). So, the result of this formula is (9,735 x 15%) which comes out to be $1460.25.

Similarly for the third employee the formula can be: $=IF(C4>=8000, C4*15%, C4*10%)$
Use of Logical Operators along with IF Statement:

Excel If Statement can also be used along with the logical operators (like AND, OR) for analysing complex logics. Here I will help you to understand how can these operators be used with IF function.

<table>
<thead>
<tr>
<th>Operator</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AND</td>
<td>AND function only results into ‘True’ when all the conditions inside it are met.</td>
</tr>
<tr>
<td>OR</td>
<td>OR Function results into ‘True’ when any one of the conditions is met.</td>
</tr>
</tbody>
</table>

The syntax of AND Function in Excel is: =AND(Logic1, Logic2, logic_n)

The syntax of OR Function in Excel is: =OR(Logic1, Logic2, logic_n)

Now let’s move to an example to understand how these functions can be used along with the IF function.

Example 3:

In this example, another company wants to give bonus to its senior employees. The company comes up with a criteria that any employee who has at-least 5 years of experience (5 years or more) and whose salary is greater than 12000 will be considered a senior employee. And such an employee will be eligible for a bonus equal to 20% of salary.
In such a scenario you cannot create an IF statement without using a logical operator. So, in this scenario we can create the if statement as:

```excel
=IF(AND(C2>=5,D2>=12000),D2*20%,"No Bonus")
```

Here, in the AND function we have used two conditions, i.e. if C2 (Experience of 1st Employee) is greater than or equal to 5 and if D2 (Salary of 1st Employee) is greater than or equal to 12000. If both these condition are ‘True’ then only the output of AND will be ‘TRUE’ if any one of the value is ‘FALSE’ then AND Function will result into ‘FALSE’

In this example for the first employee the experience is 6.4 years but the salary is less than 12000. So, the first employee won’t be eligible for any bonus.

**Past Due Notices using IF STATEMENTS**

**Past-due notices**

In this spreadsheet, the customer’s payment due date is listed in column A, the payment status is shown in column B, and the customer’s company name is in column C. The company accountant enters the date that each payment arrives, which generates this Excel spreadsheet. The bookkeeper enters a formula in column B that calculates which customers are more than 30 days past due, then sends late notices accordingly.

A. Enter the formula: `=TODAY()` in cell A1, which displays as the current date.

B. Enter the formula: `=IF(A4-TODAY()>30, "Past Due", "OK")` in cell B4.

In English, this formula means: **If** the date in cell A4 minus today’s date is greater than 30 days, **then** enter the words ‘Past Due’ in cell B4, **else**/otherwise enter the word ‘OK.’ Copy this formula from B4 to B5 through B13.
# Excel Basic to Moderate - PD

## Send "PAST DUE" Notices

<table>
<thead>
<tr>
<th>Due Date</th>
<th>Payments</th>
<th>Customer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sep 01, 2015</td>
<td>OK</td>
<td>Telluride Bluegrass Festival</td>
</tr>
<tr>
<td>Sep 05, 2015</td>
<td>OK</td>
<td>Lake Tahoe Helicopter Ski Tours</td>
</tr>
<tr>
<td>Sep 09, 2015</td>
<td>OK</td>
<td>Park City Recreation</td>
</tr>
<tr>
<td>Sep 12, 2015</td>
<td>OK</td>
<td>Thompson Brother’s Clam Bar</td>
</tr>
<tr>
<td>Sep 15, 2015</td>
<td>Past Due</td>
<td>Cape Cod Surf &amp; Sail Rentals</td>
</tr>
<tr>
<td>Sep 18, 2015</td>
<td>Past Due</td>
<td>Yosemite Museum</td>
</tr>
<tr>
<td>Sep 22, 2015</td>
<td>Past Due</td>
<td>Grand Canyon North Rim Cabins</td>
</tr>
<tr>
<td>Sep 25, 2015</td>
<td>Past Due</td>
<td>Jackson Hole White Water Rafting</td>
</tr>
<tr>
<td>Sep 27, 2015</td>
<td>Past Due</td>
<td>Sun Valley Ski Resort</td>
</tr>
<tr>
<td>Sep 30, 2015</td>
<td>Past Due</td>
<td>Yellowstone Adventures</td>
</tr>
</tbody>
</table>

The formula in cell B2 is: `=IF(A4-TODAY()>30, "Past Due", "OK")`