

Referencing and Serializing Date and Time in Excel



Pratheerth Padman
FREELANCE DATA SCIENTIST



Module Overview



Reference date and time by using the **NOW** and **TODAY** functions

- Insert date and time using NOW
- Insert date using TODAY

Storage of date and time in Excel

Insert dates and times

- DATE function
- TIME function

NOW and TODAY Functions



NOW Function



Categorized under Date/Time functions

Returns current date and time

Takes no arguments

Updated when worksheet is changed or opened



TODAY Function



Categorized under Date/Time functions

Returns current date

Takes no arguments

Updated when worksheet is changed or opened



NOW – Date and time

TODAY – Date only



Demo



Implementing the NOW and TODAY functions in Excel



Date and Time Storage in Excel



Date Storage



Stored as encoded serial numbers representing dates



Excel considers day 1 to be 1st January 1900



Each day is serialized as days elapsed after day 1



Example - 2nd Jan 1990 is 2, 29th September is 43737



Benefit of serialization

–

Add and subtract dates like
numbers



Time Storage



Stored via serialization represented by fractional values



Each day is 1, so each hour is $1/24$ or 0.04167



Minute is $1/1440$ and second is $1/86400$ of a day



Standard format is HH:MM:SS



Can be entered in both 12-hour and 24-hour format



DATE and TIME Function in Excel



DATE Function

Creates a valid date / returns serial number of a date

=DATE(year, month, day)

To assemble dates that change dynamically based on other values



TIME Function

**Creates a valid
timestamp using
individual
components**

**=TIME(hour,
minute, second)**

**To assemble times
that change
dynamically based
on other values**

