

Serializing Dates and Times in Excel



Pratheerth Padman
FREELANCE DATA SCIENTIST



Module Overview



Storage of date and time in Excel

Insert dates using DATE function

Insert times using TIME function



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**

