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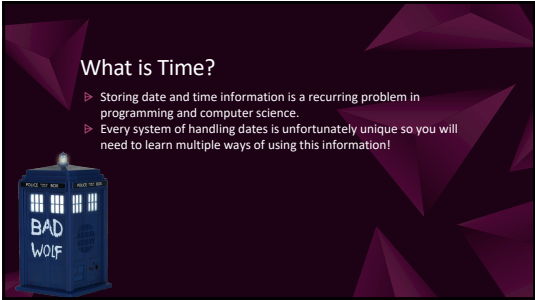
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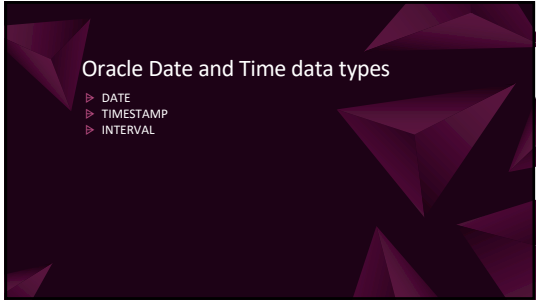
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### Date Functions

- Raw date data is usually not what anybody wants. You will usually be either converting text or numeric information to a date or extracting partial date information from one of the data types
- There are two methods that are the most common
  - TO\_CHAR returns text (VARCHAR2)
  - TO\_DATE returns a DATE
- Both methods depend on the use of format masks to build the associated return value

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### The DATE Type

- Default type for storing date information
- Whole values for
  - Year
  - Quarter
  - Month
  - Week
  - Day
  - Hour
  - Minute
  - Second

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### Format Masks

How to process information using shorthand

...sensitive

...es may not be what you think the

...organize ...re



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### Common Format Masks

Mask	Value	Mask	Value
RR	Last two digits of year	YYYY	Four digit year
DD	Digits for day of month	MON	Three letter month (CAPS)
Month	Month (padded)	HH	Hour digits
MI	Minutes	MM	Month number
DDD	Day of the year	DY	Day abbreviation
Ddpth	Spelled out value of day (padded)	fm	Suppress blank space

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### Right now?

- You can access the current time with the SYSDATE command
- It returns the current OS time info from the SERVER not the local machine!!!!
- The default value displayed is DD-MON-RR
- You can extract more data using TO\_CHAR and associated format masks

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### Date Manipulation

- You can even calculate date and time information using the INTERVAL data type that is broken down into to large and small scale values
- INTERVAL YEAR TO MONTH
- INTERVAL DAY TO SECOND
- TO\_YMINTERVAL
- TO\_DSINTERVAL
- NEXT\_DAY
- EXTRACT ...

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Date Math

Code	Logic
<code>SYSDATE ± whole_number</code>	Add/subtract days
<code>date_field ± some_number / 24</code>	Add/subtract hours
<code>TO_DATE('02/14/24', 'MM/DD/RR') ± value / 1440</code>	Add/subtract minutes
<code>ADD_MONTHS(SYSDATE, years * 12)</code>	Add years

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