PRACTICAL-1

Aim -To study data-types of D.B.M.S in Oracle

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| Code | Data Types | Description |
| 1 | VARCHAR2(*size* [BYTE | CHAR]) | Variable-length character string having maximum length *size* bytes or characters. You must specify *size* for VARCHAR2. Minimum *size* is 1 byte or 1 character. Maximum size is:   * 32767 bytes or characters if MAX\_STRING\_SIZE = EXTENDED * 4000 bytes or characters if MAX\_STRING\_SIZE = STANDARD |
| 1 | NVARCHAR2(*size*) | Variable-length Unicode character string having maximum length *size* characters. You must specify *size* for NVARCHAR2. The number of bytes can be up to two times *size* for AL16UTF16 encoding and three times *size* for UTF8 encoding. Maximum *size* is determined by the national character set definition, with an upper limit of:   * 32767 bytes if MAX\_STRING\_SIZE = EXTENDED * 4000 bytes if MAX\_STRING\_SIZE = STANDARD |
| 2 | NUMBER [ (*p* [, *s*])] | Number having precision *p* and scale *s*. The precision *p* can range from 1 to 38. The scale *s* can range from -84 to 127. Both precision and scale are in decimal digits. A NUMBER value requires from 1 to 22 bytes. |
| 8 | LONG | Character data of variable length up to 2 gigabytes, or 231 -1 bytes. Provided for backward compatibility. |
| 2 | FLOAT [(*p*)] | A subtype of the NUMBER data type having precision *p*. A FLOAT value is represented internally as NUMBER. The precision *p* can range from 1 to 126 binary digits. A FLOAT value requires from 1 to 22 bytes. |
| 12 | DATE | Valid date ranges from January 1, 4712 BC, to December 31, 9999 AD. The default format is determined explicitly by the NLS\_DATE\_FORMAT parameter or implicitly by the NLS\_TERRITORY parameter. The size is fixed at 7 bytes. This data type contains the datetime fields YEAR, MONTH, DAY, HOUR, MINUTE, and SECOND. It does not have fractional seconds or a time zone. |
| 23 | RAW (*size*) | Raw binary data of length *size* bytes. You must specify *size* for a RAW value. Maximum *size* is:   * 32767 bytes if MAX\_STRING\_SIZE = EXTENDED * 2000 bytes if MAX\_STRING\_SIZE = STANDARD |
| 96 | CHAR [(*size* [BYTE/CHAR])] | Fixed-length character data of length *size* bytes or characters. Maximum *size* is 2000 bytes or characters. Default and minimum *size* are 1 byte.  BYTE and CHAR have the same semantics as for VARCHAR2. |
| 96 | NCHAR[(*size*)] | Fixed-length character data of length *size* characters. The number of bytes can be up to two times *size* for AL16UTF16 encoding and three times *size* for UTF8 encoding. Maximum *size* is determined by the national character set definition, with an upper limit of 2000 bytes. Default and minimum *size* are 1 character. |
| 113 | BLOB | A binary large object. Maximum size is (4 gigabytes - 1) \* (database block size). |
| 114 | BFILE | Contains a locator to a large binary file stored outside the database. Enables byte stream I/O access to external LOBs residing on the database server. Maximum size is 4 gigabytes. |
| 119 | JSON | Maximum size is 32 MB |
| 252 | BOOLEAN | The BOOLEAN data types compare the distant truth value. True & false. unless prohibited by not null constraint the Booleans data type also support the truth value knowns as the null value. |