Working with DB2 LOB's

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Introduction to LOB's

- The VARCHAR, VARGRAPHIC, and VARBINARY data types have a storage limit of 32 KB.

- However, applications often need to store large text documents or additional data types such as audio, video, drawings, images, and a combination of text and graphics.

- For data objects that are larger than 32 KB, you can use the corresponding large object (LOB) data types to store these objects.

- DB2® provides three data types to store these data objects as strings of up to 2 GB in size:

    - CLOBs
    - DBCLOBs
    - BLOBs

Character large objects (CLOBs)

- A character large object (CLOB) is a varying-length string with a maximum length of 2 147 483 647 bytes (2 gigabytes minus 1 byte).

- A CLOB is designed to store large SBCS data or mixed data, such as lengthy documents.

- For example, you can store information such as an employee resume, the script of a play, or the text of novel in a CLOB. Alternatively, you can store such information in UTF-8 in a mixed CLOB. A CLOB is a varying-length character string.

- Use the CLOB data type to store SBCS or mixed data, such as documents that contain single character set.

- Use this data type if your data is larger (or might grow larger) than the VARCHAR data type permits.

Double-byte character large objects (DBCLOBs)

- A double-byte character large object (DBCLOB) is a varying-length string with a maximum length of 1 073 741 823 double-byte characters.

- A DBCLOB is designed to store large DBCS data. For example, you could store the information mentioned for CLOB (an employee resume, the script for a play, or the text of a novel) in UTF-16 in a DBCLOB.

- A DBCLOB is a varying-length graphic string.

- Use the DBCLOB data type to store large amounts of DBCS data, such as documents that use a DBCS character set.

Binary large objects (BLOBs)

- A binary large object (BLOB) is a varying-length string with a maximum length of 2 147 483 647 bytes (2 gigabytes minus 1 byte).

- A BLOB is designed to store non-traditional data such as pictures, voice, and mixed media.

- BLOBs can also store structured data for use by distinct types and user-defined functions. A BLOB is a binary string.

- Use the BLOB data type to store large amounts of noncharacter data, such as pictures, voice, and mixed media.

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- Although BLOB strings and FOR BIT DATA character strings might be used for similar purposes, the two data types are not compatible.

- The BLOB function can be used to change a FOR BIT DATA character string into a BLOB string.

- If your data does not fit entirely within a data page, you can define one or more columns as LOB columns.

- An advantage to using LOBs is that you can create user-defined functions that are allowed only on LOB data types.

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THANK YOU