MOBILE SOLUTIONS DEVELOPMENT

INCLASS TASK 4

Programming: Database Management

CONESTOGA

Connect Life and Learning

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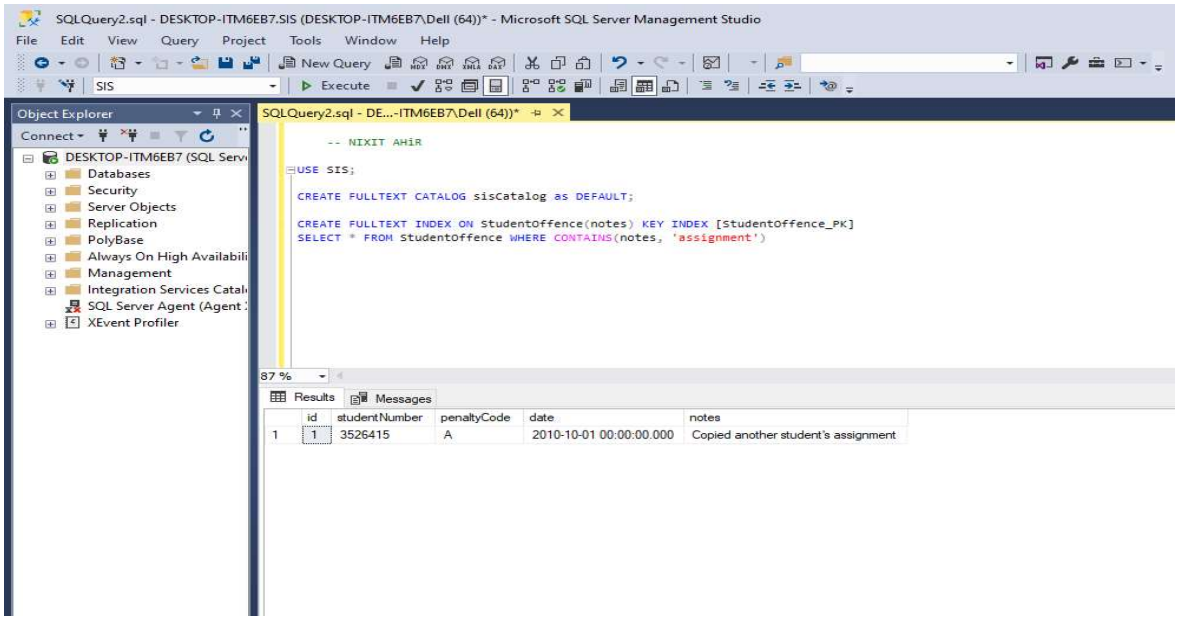
Contents

Install Full-Text Index feature on your SQL Server Express instance then
- create a full text catalog called sisCatalog in the SIS database
- create a full-test index on table StudentOffence, column notes, using the tables primary key
- write an execute a query to return any note containing the word 'assignment'
Attach a screen shot showing your query and its results

```
CREATEFULLTEXTCATALOG sisCatalog asDEFAULT;
CREATEFULLTEXTINDEXON StudentOffence(notes)KEYINDEX [StudentOffence_PK]
SELECT*FROMStudentOffenceWHERECONTAINS(notes,'assignment')
```



1) Using the AdventureWorks2017 database, available to download from the shell
   - create a full-text catalog named AdvWksDocFTCat
   - create a unique, single-column, non-nullable index ui_ukDoc, on the DocumentNode column of the Document table.
   - drop the existing full-text index on the Document table
   - create a full-text index on the Document table by using the following statement

```
CREATE FULLTEXT INDEX ON Production.Document
(
Document --Full-text index column name
TYPE COLUMN FileExtension --Name of column that
contains file type
information
Language 2057 --2057 is the LCID for British English
```

```
)
KEY INDEX ui_ukDoc ON AdvWksDocFTCat --Unique index
WITH CHANGE_TRACKING AUTO --Population type;
GO
```

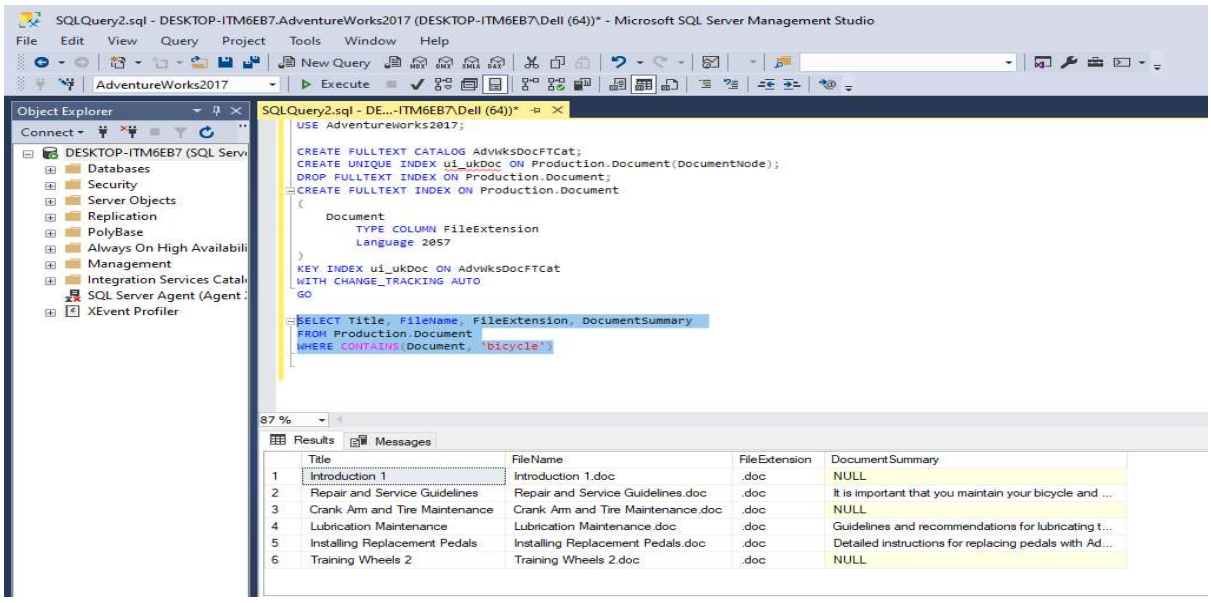
Write a query against Production.Document table that displays Title, FileName, FileNameExtension and DocumentSummary columns where the column Document contains the word ‘bicycle.

Attach a screen shot showing your query and its results

```
USE AdventureWorks2017;

CREATEFULLTEXTCATALOG AdvWksDocFTCat;
CREATEUNIQUEINDEXui_ukDocONProduction.Document(DocumentNode);
DROPFULLTEXTINDEXON Production.Document;
CREATEFULLTEXTINDEXON Production.Document
(
	Document	Full-text index column name
		TYPECOLUMN FileExtension	--Name of column that contains file type information
		Language 2057		--2057 is the LCID for British English
)
KEYINDEX ui_ukDoc ON AdvWksDocFTCat	--Unique index
WITHCHANGE_TRACKINGAUTO--Population type;
GO


SELECT Title,FileName, FileExtension, DocumentSummary
FROM Production.Document
WHERECONTAINS(Document,'bicycle')
```



What are the 3 types of data encountered in Big Data?

Structured - Any data that can be stored, accessed and processed with aknown, fixed format is considered structured data

Unstructured - Any data with an unknown form or structure is consideredunstructured data.

Semi-structured - Semi-structured data can contain both structured and unstructured data

What are the 4 characteristics of Big Data?

Big data has the following characteristics, commonly referred to as the four Vs.

- Volume,
- Variety,
- Velocity,
- Veracity, or Variability.

An Excel spreadsheet is an example of what of data?

Structured Data

What are 3 advantages of Big Data Solutions

Performance: volumes too large for traditional databases can be stored and process in“parallel”, taking advantage of distributed systems.
Real-time analysis: given the velocity of incoming data, it is possible to speed up the“marketing cycle”, that is, capture, organize and analyze streams ofdata in real-time to gauge the effectiveness of an executed plan.
Structure: big data can be summarized into structured data, ready for storage andanalysis for business decisions in a relational database system.

What are 2 of the ethical concerns for Big Data solutions

Failure of Disclosure
The privacy of the individuals whose data are being collected and analyzed is violated as they are generally unaware of what the data is being used for

Purpose Limitation and Consent
The privacy of the individuals whose data are being collected and analyzed is violated as they are generally unaware of what the data is being used for

What is a reason that Relational Database is not best suited for Big Data

Relational Databases were not designed for **unstructured data** and can be challenged by huge volumes ofdata.

An RDBMS is designed to handle structured data. This means
that an RDBMS will be limited in handling much of Big Data, which is largely unstructured.

Refereneces

Top 5 Big Data Databases in 2022: Features, Benefits, Pricing

Top 5 Big Data Databases in 2022: Features, Benefits, Pricing. (2022). Retrieved 13 April 2022, from https://www.scnsoft.com/analytics/big-data/databases#:~:text=Big%20data%20

What is Big Data? Introduction, Types, Characteristics, Examples

What is Big Data? Introduction, Types, Characteristics, Examples. (2020). Retrieved 13 April 2022, from https://www.guru99.com/what-is-big-data.html