--- 9 лаба

--- 1 задание

use univer;

drop table #ex1;

EXEC SP\_HELPINDEX 'AUDITORIUM';

EXEC SP\_HELPINDEX 'AUDITORIUM\_TYPE';

EXEC SP\_HELPINDEX 'FACULTY';

EXEC SP\_HELPINDEX 'GROUPS';

EXEC SP\_HELPINDEX 'PROFESSION';

EXEC SP\_HELPINDEX 'PROGRESS';

EXEC SP\_HELPINDEX 'PULPIT';

EXEC SP\_HELPINDEX 'STUDENT';

EXEC SP\_HELPINDEX 'SUBJECT\_T';

EXEC SP\_HELPINDEX 'TEACHER';

CREATE TABLE #EX1 (

ID int IDENTITY(1,1),

TFIELD varchar(100)

);

SET nocount on;

DECLARE @i int = 0;

WHILE (@i < 1000)

BEGIN

INSERT #EX1 VALUES(@i + GETDATE());

SET @i = @i + 1;

END;

SELECT \*

FROM #EX1

WHERE ID BETWEEN 150 AND 250

ORDER BY ID;

checkpoint;

DBCC DROPCLEANBUFFERS;

CREATE clustered index ##EX1\_CL on #EX1(ID asc);

SELECT \*

FROM #EX1

WHERE ID BETWEEN 150 AND 250

ORDER BY ID;

--- 2 задание

drop table #ex2;

GO

CREATE TABLE #EX2 (

ID int IDENTITY(1,1),

TFIELD varchar(100),

RAND\_NUM int

);

SET nocount on;

DECLARE @i int = 0;

WHILE (@i < 10000)

BEGIN

INSERT #EX2 VALUES(@i + GETDATE(), floor(300\*RAND()));

SET @i = @i + 1;

END;

SELECT COUNT(\*) [Row count]

FROM #EX2;

checkpoint;

DBCC DROPCLEANBUFFERS;

CREATE clustered index #EX2\_CL on #EX2(ID asc, TFIELD);

SELECT \*

FROM #EX2

WHERE RAND\_NUM = 123

ORDER BY ID;

--- 3 задание

GO

CREATE TABLE #EX3 (

ID int IDENTITY(1,1),

TFIELD varchar(100),

RAND\_NUM int

);

SET nocount on;

DECLARE @i int = 0;

WHILE (@i < 10000)

BEGIN

INSERT #EX3 VALUES(@i + GETDATE(), floor(300\*RAND()));

SET @i = @i + 1;

END;

SELECT TFIELD from #EX3 where ID between 1 and 100;

checkpoint;

DBCC DROPCLEANBUFFERS;

CREATE INDEX #EX3\_CL on #EX3(ID) INCLUDE (TFIELD);

SELECT \*

FROM #EX3

WHERE RAND\_NUM = 123

ORDER BY ID;

--- 4 задание

CREATE TABLE #EX4 (

ID int IDENTITY(1,1),

TFIELD varchar(100),

RAND\_NUM int

);

SET nocount on;

DECLARE @i int = 0;

WHILE (@i < 20000)

BEGIN

INSERT #EX4 VALUES(@i + GETDATE(), floor(30000\*RAND()));

SET @i = @i + 1;

END;

CREATE INDEX #EX\_WHERE ON #EX4(RAND\_NUM)

WHERE RAND\_NUM >= 10000 AND RAND\_NUM <= 20000;

SELECT RAND\_NUM FROM #EX4 WHERE RAND\_NUM BETWEEN 5000 AND 19999;

SELECT RAND\_NUM FROM #EX4 WHERE RAND\_NUM >= 10000 AND RAND\_NUM <= 20000;

SELECT RAND\_NUM FROM #EX4 WHERE RAND\_NUM = 17000;

--- 5 задание

GO

CREATE TABLE #EX5 (

ID int IDENTITY(1,1),

TFIELD varchar(100),

RAND\_NUM int

);

SET nocount on;

DECLARE @i int = 0;

WHILE (@i < 20000)

BEGIN

INSERT #EX5 VALUES(@i + GETDATE(), floor(30000\*RAND()));

SET @i = @i + 1;

END;

SELECT \* FROM #EX5 where ID between 150 and 200 order by ID;

SELECT a.index\_id, name, avg\_fragmentation\_in\_percent

FROM sys.dm\_db\_index\_physical\_stats (DB\_ID(N'#EX5'),

NULL, NULL, NULL, NULL) AS a

JOIN sys.indexes AS b

ON a.object\_id = b.object\_id AND a.index\_id = b.index\_id;

ALTER index #EXAMPLE\_UNCL on #EX5 reorganize;

ALTER index #EXAMPLE\_UNCL on #EX5 rebuild with (online = off);

--- 6 задание

GO

CREATE TABLE #EX6 (

ID int IDENTITY(1,1),

TFIELD varchar(100),

RAND\_NUM int

);

SET nocount on;

DECLARE @i int = 0;

WHILE (@i < 20000)

BEGIN

INSERT #EX6 VALUES(@i + GETDATE(), floor(30000\*RAND()));

SET @i = @i + 1;

END;

CREATE index #EX\_TKEY on #EX6(RAND\_NUM) with (fillfactor = 65);

INSERT top(50) percent INTO #EX6(TFIELD, RAND\_NUM)

SELECT TFIELD, RAND\_NUM FROM #EX6;

SELECT a.index\_id, name, avg\_fragmentation\_in\_percent

FROM sys.dm\_db\_index\_physical\_stats (DB\_ID(N'#EX6'),

NULL, NULL, NULL, NULL) AS a

JOIN sys.indexes AS b

ON a.object\_id = b.object\_id AND a.index\_id = b.index\_id;