



```
CATALOG TCPIP NODE ipv6_server
REMOTE 1080:0:0:0:8:800:200C:417A
SERVER 60000
OSTYPE LINUX
WITH "A remote Linux TCP/IP node"
```

## Automatic Maintenance

Although the Task Center can be used to schedule routine maintenance operations, in some cases it can be time-consuming to determine whether and when to run some of the more resource-intensive maintenance utilities available. With automatic maintenance (a new feature introduced in DB2 9), you specify your maintenance objectives, and the DB2 Database Manager will use the objectives you have identified to determine whether one or more maintenance activities need to be performed. If it is determined that a maintenance operation is required, that operation will be carried out during the next available maintenance window (a maintenance window is a time period, specified by you, in which all automatic maintenance activities are to be performed).

Automatic maintenance can be used to perform the following maintenance operations:

- **Create a backup image of the database.** Automatic database backup provides users with a solution to help ensure their database is being backed up both properly and regularly, without their having to worry about when to back up or having any knowledge of the syntax for the BACKUP command.
- **Data defragmentation (table or index reorganization).** This maintenance activity can increase the efficiency with which the DB2 Database Manager accesses tables. Automatic reorganization manages offline table and index reorganization without users having to worry about when and how to reorganize their data.
- **Data access optimization (running RUNSTATS).** The DB2 Database Manager updates the system catalog statistics on the data in a table, the data in a table's indexes, or the data in both a table and its indexes. The DB2 Optimizer uses these statistics to determine which path to use to access data in response to a query. Automatic statistics collection attempts to improve the performance of the database by maintaining up-to-date table statistics. The goal is to allow the DB2 Optimizer to always choose an access plan based on accurate statistics.

### Question 3

Which of the following commands will successfully catalog a node for a Linux server that has the IP address 1800:0:0:0:6:400:200C:217A and a DB2 instance named DB2INST1 that is listening on port 60000 and assign it the alias RMT\_SERVER?

- A. CATALOG TCPIP NODE rmt\_server  
REMOTE 1800:0:0:0:6:400:200C:217A  
SERVER 6000  
OSTYPE LINUX
- B. CATALOG TCPIP2 NODE rmt\_server  
REMOTE 1800:0:0:0:6:400:200C:217A  
SERVER 6000  
OSTYPE LINUX
- C. CATALOG TCPIP4 NODE rmt\_server  
REMOTE 1800:0:0:0:6:400:200C:217A  
SERVER 6000  
OSTYPE LINUX
- D. CATALOG TCPIP6 NODE rmt\_server  
REMOTE 1800:0:0:0:6:400:200C:217A  
SERVER 6000  
OSTYPE LINUX

### Question 4

A DB2 Version 8.2 database named PAYROLL was successfully migrated to DB2 9. Which of the following commands will activate automatic table and index reorganization for the database?

- A. UPDATE DB CFG FOR payroll USING AUTO\_MAINT ON AUTO\_REORG ON;
- B. UPDATE DB CFG FOR payroll USING AUTO\_MAINT ON AUTO\_TBL\_MAINT ON;
- C. UPDATE DB CFG FOR payroll USING AUTO\_TBL\_MAINT ON AUTO\_REORG ON;
- D. UPDATE DB CFG FOR payroll USING AUTO\_MAINT ON AUTO\_TBL\_MAINT ON AUTO\_REORG ON;

<i>HostName</i>	Identifies the host name, as it is known to the TCP/IP network. (This is the name of the server where the remote database you are trying to communicate with resides.)
<i>ServiceName</i>	Identifies the name of the service with which the DB2 Database Manager instance on the server uses to communicate.
<i>PortNumber</i>	Identifies the port number with which the DB2 Database Manager instance on the server uses to communicate.
<i>InstanceName</i>	Identifies the name of the server instance to which an attachment is to be made.
<i>SystemName</i>	Identifies the DB2 system name that is used to identify the server workstation.
<i>SystemType</i>	Identifies the type of operating system being used on the server workstation. The following values are valid for this parameter: AIX, WIN, HPUX, SUN, OS390, OS400, VM, VSE, and LINUX.
<i>Description</i>	A comment used to describe the node entry that will be made in the node directory for the node being cataloged. The description must be enclosed by double quotation marks.

Thus, if you wanted to catalog a node for a Linux server that has the IPv6 address 1800:0:0:0:6:400:200C:217A and a DB2 instance named DB2INST1 that is listening on port 60000 and assign it the alias RMT\_SERVER, you could do so by executing a CATALOG TCPIP NODE command that looks something like this:

```
CATALOG TCPIP NODE rmt_server
REMOTE 1800:0:0:0:6:400:200C:217A
SERVER 60000
OSTYPE LINUX
```


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### Question 4

The correct answer is **D**. The *auto\_maint* database configuration parameter enables or disables automatic maintenance for a database; this is the parent of all other automatic maintenance database configuration parameters (*auto\_db\_backup*, *auto\_tbl\_maint*, *auto\_runstats*, *auto\_stats\_prof*, *auto\_prof\_upd*, and *auto\_reorg*). When this parameter is assigned the value OFF, all of its children parameters are disabled, but their settings, as recorded in the database configuration file, do not change. When this parameter is assigned the value ON, recorded values for its children parameters take effect.

HR\_STAFF an exemption to one or more security policy rules. When a user holds an exemption on a particular security policy rule, that rule is not enforced when the user attempts to access data that is protected by that security policy.

Security policy exemptions are granted by executing the GRANT EXEMPTION ON RULE SQL statement (as a user with SECADM authority). The syntax for this statement is:

  
**CREATE** EXEMPTION ON RULE [*Rule*] ,...  
FOR [*PolicyName*]  
TO USER [*UserName*]

where:

*Rule* Identifies one or more DB2LBACRULES security policy rules for which exemptions are to be given. The following values are valid for this parameter: DB2LBACREADARRAY, DB2LBACREADSET, DB2LBACREADTREE, DB2LBACWRITEARRAY WRITEDOWN, DB2LBACWRITEARRAY WRITEUP, DB2LBACWRITESSET, DB2LBACWRITETREE, and ALL. (If an exemption is held for every security policy rule, the user will have complete access to all data protected by that security policy.)

*PolicyName* Identifies the security policy for which the exemption is to be granted.

*UserName* Identifies the name of the user to which the exemptions specified are to be granted.

Thus, to grant an exemption to the DB2LBACWRITEARRAY rule in the security policy named SEC\_POLICY created earlier to a user named HR\_STAFF, you would execute a GRANT EXEMPTION statement that looks something like this:

```
GRANT EXEMPTION ON RULE DB2LBACWRITEARRAY  
WRITEDOWN FOR sec_policy  
TO USER hr_staff
```

Once this exemption is granted along with the appropriate security label, user HR\_STAFF will then be able to execute the ALTER TABLE statement shown earlier