

IS 664 Fall 2021



Imperial_defense

PRACTICE FINAL EXAM STORED PROCEDURES

PROFESSOR HG LOCKLEAR

GENERAL

- This is your PRACTICE FINAL EXAM.
- You receive 10 points for a CORRECT solution.
- Read the task carefully and write the code necessary to create the defined Stored Procedure.
- Create a single SQL script containing all the code for the Task.
- The Stored Procedure MUST be created in the imperial_defense database.
- The Stored Procedure MUST utilize one or more cursors to retrieve all required data and MAY NOT have hardcoded values.
- You MAY NOT use any SELECT ...INTO statements in your procedure.
- The Stored Procedure MAY INCLUDE user-defined and native functions.
- Utilize your MySQL documentation.
- Be conscious of good style and eliminate extraneous code from your SQL script.
- The PRACTICE EXAM is due on Thursday Dec 16th at 6 PM.

TASK

Create the stored procedure `widgetNetworkAnalysis` which accepts two parameters and creates/populates/displays the table `widgetNET`.

Parameter 1: The first number in the WID of the Widget.

Parameter 2: The last number in the WID of the Widget.

```
MySQL 8.0 Command Line Client
mysql> describe widgetnet;
+-----+-----+-----+-----+-----+-----+
| Field                | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| WID_ID_Type          | varchar(30)   | NO   | PRI | NULL    |       |
| WID_IsSecure         | varchar(50)   | YES  |     | NULL    |       |
| NET_Status           | varchar(100)  | YES  |     | NULL    |       |
| NET_IsSwitched       | varchar(50)   | YES  |     | NULL    |       |
| NET_Bandwidths       | json          | YES  |     | NULL    |       |
| NET_BandwidthsStats  | json          | YES  |     | NULL    |       |
| SITE_Name_Location   | varchar(50)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
```

- **NET_Bandwidths** consists of the Network Bandwidth, OptimumBW, MaxBW, and MinBW attributes.
- **NET_BandwidthsStats** consists of the mean, variance, and standard deviation of the Network Bandwidth, OptimumBW, MaxBW, and MinBW attributes.

EXPECTED OUTPUT

Call the procedure with the following parameters

CALL widgetNetworkAnalysis(1,6); CALL widgetNetworkAnalysis(2,5); CALL widgetNetworkAnalysis(3,4);

MySQL 8.0 Command Line Client

Query OK, 0 rows affected, 1 warning (0.00 sec)

WID_ID_Type	WID_IsSecure	NET_Status	NET_IsSwitched	NET_BandWidths	NET_BandWidthsStats	SITE_Name_Location
WDG#116 Pad	Secure	SAT COMM Network Ginda02xNET_SAT is currently ONLINE	Switched	[321.000, 272.850, 401.250, 144.450]	[284.888, 11570.646, 107.570]	Eaw99q12 at Coordinates: (21,178)
WDG#126 Terminal	Open	CIV DATA Network Trerth01wNET_CIV is currently ONLINE	Not Switched	[447.000, 379.950, 558.750, 201.150]	[396.713, 22436.885, 149.790]	Cah99q3 at Coordinates: (27,2)
WDG#136 Pad	Secure	SAT COMM Network Zebetis02xNET_SAT is currently OFFLINE	Switched	[653.000, 555.050, 816.250, 293.850]	[579.538, 47882.177, 218.820]	Eap0012 at Coordinates: (80,168)
WDG#146 Terminal	Secure	DEF DATA Network Trerth05uNET_DEF is currently ONLINE	Switched	[743.000, 631.550, 928.750, 334.350]	[659.413, 61990.503, 248.980]	Day0018 at Coordinates: (54,218)
WDG#156 Terminal	Secure	TRACK DATA Network Brore01wNET_TRACK is currently OFFLINE	Switched	[495.000, 420.750, 618.750, 222.750]	[439.313, 27514.266, 165.870]	Ear019k19 at Coordinates: (68,115)
WDG#166 Device	Open	DEF DATA Network Trerth05uNET_DEF is currently ONLINE	Switched	[743.000, 631.550, 928.750, 334.350]	[659.413, 61990.503, 248.980]	Ear019k19 at Coordinates: (68,115)
WDG#176 Pad	Secure	CIV VIDEO Network Zebetis05uNET_CIV is currently ONLINE	Not Switched	[809.000, 687.650, 1011.250, 364.050]	[717.988, 73492.762, 271.100]	Eap246e1 at Coordinates: (38,39)
WDG#196 Device	Open	CIV VIDEO Network Zebetis05uNET_CIV is currently ONLINE	Not Switched	[809.000, 687.650, 1011.250, 364.050]	[717.988, 73492.762, 271.100]	Day0018 at Coordinates: (54,218)

8 rows in set (0.04 sec)

Query OK, 0 rows affected (0.07 sec)

WID_ID_Type	WID_IsSecure	NET_Status	NET_IsSwitched	NET_BandWidths	NET_BandWidthsStats	SITE_Name_Location
WDG#205 Terminal	Open	DEF DATA Network Trerth05uNET_DEF is currently ONLINE	Switched	[743.000, 631.550, 928.750, 334.350]	[659.413, 61990.503, 248.980]	Aah987w7 at Coordinates: (56,55)
WDG#215 Terminal	Open	CIV VIDEO Network Zebetis05uNET_CIV is currently ONLINE	Not Switched	[809.000, 687.650, 1011.250, 364.050]	[717.988, 73492.762, 271.100]	Eap99q15 at Coordinates: (62,249)
WDG#235 Terminal	Secure	CIV VIDEO Network Zebetis05uNET_CIV is currently ONLINE	Not Switched	[809.000, 687.650, 1011.250, 364.050]	[717.988, 73492.762, 271.100]	Bar246e18 at Coordinates: (15,226)
WDG#245 Device	Secure	CIV VIDEO Network Povebos04zNET_CIV is currently OFFLINE	Switched	[159.000, 135.150, 198.750, 71.550]	[141.113, 2838.846, 53.280]	Aax00121 at Coordinates: (2,193)
WDG#25 Pad	Open	TRACK DATA Network Brore01wNET_TRACK is currently OFFLINE	Switched	[495.000, 420.750, 618.750, 222.750]	[439.313, 27514.266, 165.870]	Bar99q17 at Coordinates: (81,243)
WDG#255 Terminal	Secure	SAT DATA Network Brore03yNET_SAT is currently ONLINE	Switched	[128.000, 108.800, 160.000, 57.600]	[113.600, 1839.787, 42.890]	Bar99q17 at Coordinates: (81,243)
WDG#265 Device	Open	TRACK DATA Network Brore01wNET_TRACK is currently OFFLINE	Switched	[495.000, 420.750, 618.750, 222.750]	[439.313, 27514.266, 165.870]	Eah246e9 at Coordinates: (2,99)
WDG#275 Pad	Secure	SAT DATA Network Brore03yNET_SAT is currently ONLINE	Switched	[128.000, 108.800, 160.000, 57.600]	[113.600, 1839.787, 42.890]	Far00113 at Coordinates: (66,182)
WDG#285 Device	Secure	SURV DATA Network Brore06vNET_SURV is currently OFFLINE	Switched	[540.000, 459.000, 675.000, 243.000]	[479.250, 32744.251, 180.950]	Bar99q17 at Coordinates: (81,243)
WDG#295 Terminal	Secure	SURV DATA Network Brore06vNET_SURV is currently OFFLINE	Switched	[540.000, 459.000, 675.000, 243.000]	[479.250, 32744.251, 180.950]	Eay0014 at Coordinates: (10,10)

10 rows in set (0.03 sec)

Query OK, 0 rows affected (0.07 sec)

WID_ID_Type	WID_IsSecure	NET_Status	NET_IsSwitched	NET_BandWidths	NET_BandWidthsStats	SITE_Name_Location
WDG#304 Pad	Open	SAT DATA Network Brore03yNET_SAT is currently ONLINE	Switched	[128.000, 108.800, 160.000, 57.600]	[113.600, 1839.787, 42.890]	Day0018 at Coordinates: (54,218)
WDG#314 Pad	Secure	CIV VIDEO Network Zebetis05uNET_CIV is currently ONLINE	Not Switched	[809.000, 687.650, 1011.250, 364.050]	[717.988, 73492.762, 271.100]	Cax987w14 at Coordinates: (45,95)
WDG#324 Device	Secure	SURV DATA Network Brore06vNET_SURV is currently OFFLINE	Switched	[540.000, 459.000, 675.000, 243.000]	[479.250, 32744.251, 180.950]	Eap0012 at Coordinates: (80,168)
WDG#334 Device	Secure	CIV DATA Network Trerth01wNET_CIV is currently ONLINE	Not Switched	[447.000, 379.950, 558.750, 201.150]	[396.713, 22436.885, 149.790]	Eay0016 at Coordinates: (59,212)
WDG#34 Terminal	Secure	TRACK DATA Network Brore01wNET_TRACK is currently OFFLINE	Switched	[495.000, 420.750, 618.750, 222.750]	[439.313, 27514.266, 165.870]	Cax987w14 at Coordinates: (45,95)
WDG#344 Device	Secure	SAT COMM Network Zebetis02xNET_SAT is currently OFFLINE	Switched	[653.000, 555.050, 816.250, 293.850]	[579.538, 47882.177, 218.820]	Eap0012 at Coordinates: (80,168)
WDG#354 Pad	Open	CIV VIDEO Network Povebos04zNET_CIV is currently OFFLINE	Switched	[159.000, 135.150, 198.750, 71.550]	[141.113, 2838.846, 53.280]	Eap99q15 at Coordinates: (62,249)
WDG#364 Pad	Secure	CIV VIDEO Network Povebos04zNET_CIV is currently OFFLINE	Switched	[159.000, 135.150, 198.750, 71.550]	[141.113, 2838.846, 53.280]	Far00113 at Coordinates: (66,182)
WDG#374 Pad	Open	CIV VIDEO Network Zebetis05uNET_CIV is currently ONLINE	Not Switched	[809.000, 687.650, 1011.250, 364.050]	[717.988, 73492.762, 271.100]	Eay0014 at Coordinates: (10,10)
WDG#384 Terminal	Secure	SAT COMM Network Ginda02xNET_SAT is currently ONLINE	Switched	[321.000, 272.850, 401.250, 144.450]	[284.888, 11570.646, 107.570]	Day0018 at Coordinates: (54,218)

10 rows in set (0.03 sec)