



SQL Server Assessment

SQL Server Detail Report - FITGEN/DB02



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Prepared by:
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1 - About this Report

This report details the settings and health of the SQL Server as a whole. It looks at settings, configuration, performance, and backup. Information and detailed breakdown of databases can be found in the Database Detail report.

2 - System Information

| | |
|--------------------|---------------------------------|
| Machine Name | DB02 |
| OS Version | Windows Server 2012 R2 Standard |
| SQL Server Name | DB02 |
| SQL Server Version | 13.0.5026.0 |
| Product Level | |

3 - Cluster Information

This instance was not identified to be part of a cluster

4 - Hardware Information

| | |
|-----------------------|--|
| Processor | Intel(R) Xeon(R) CPU E5-2690 0 @ 2.90GHz |
| Logical CPUs | 8 |
| Physical CPUs | 4 |
| Physical Memory (MB) | 12287 |
| SQL Server Start Time | 17/09/2019 |

5 - Server Information

| Setting Name | Value | Value in Use | Description |
|---------------------------------|-------|--------------|--|
| Access Check Cache Bucket Count | 0 | 0 | Default hash bucket count for the access check result security cache |
| Access Check Cache Quota | 0 | 0 | Default quota for the access check result security cache |
| Ad Hoc Distributed Queries | 0 | 0 | Enable or disable Ad Hoc Distributed Queries |
| Affinity I/O Mask | 0 | 0 | affinity I/O mask |
| Affinity Mask | 0 | 0 | affinity mask |
| Affinity64 I/O Mask | 0 | 0 | affinity64 I/O mask |
| Affinity64 Mask | 0 | 0 | affinity64 mask |
| Agent Xps | 1 | 1 | Enable or disable Agent XPs |
| Allow Updates | 0 | 0 | Allow updates to system tables |
| Awe Enabled | 0 | 0 | AWE enabled in the server |
| Backup Compression Default | 0 | 0 | Enable compression of backups by default |
| Blocked Process Threshold (S) | 0 | 0 | Blocked process reporting threshold |
| C2 Audit Mode | 0 | 0 | c2 audit mode |
| Clr Enabled | 0 | 0 | CLR user code execution enabled in the server |
| Cost Threshold For Parallelism | 5 | 5 | cost threshold for parallelism |
| Cross Db Ownership Chaining | 0 | 0 | Allow cross db ownership chaining |
| Cursor Threshold | -1 | -1 | cursor threshold |
| Database Mail Xps | 1 | 1 | Enable or disable Database Mail XPs |
| Default Full-Text Language | 1033 | 1033 | default full-text language |
| Default Language | 0 | 0 | default language |
| Default Trace Enabled | 1 | 1 | Enable or disable the default trace |
| Disallow Results From Triggers | 0 | 0 | Disallow returning results from triggers |
| Filestream Access Level | 0 | 0 | Sets the FILESTREAM access level |
| Fill Factor (%) | 0 | 0 | Default fill factor percentage |
| Ft Crawl Bandwidth (Max) | 100 | 100 | Max number of full-text crawl buffers |
| Ft Crawl Bandwidth (Min) | 0 | 0 | Number of reserved full-text crawl buffers |
| Ft Notify Bandwidth (Max) | 100 | 100 | Max number of full-text notifications buffers |
| Ft Notify Bandwidth (Min) | 0 | 0 | Number of reserved full-text notifications buffers |

| Setting Name | Value | Value in Use | Description |
|-------------------------------|------------|--------------|---|
| Index Create Memory (KB) | 0 | 0 | Memory for index create sorts (kBytes) |
| In-Doubt Xact Resolution | 0 | 0 | Recovery policy for DTC transactions with unknown outcome |
| Lightweight Pooling | 0 | 0 | User mode scheduler uses lightweight pooling |
| Locks | 0 | 0 | Number of locks for all users |
| Max Degree Of Parallelism | 0 | 0 | maximum degree of parallelism |
| Max Full-Text Crawl Range | 4 | 4 | Maximum crawl ranges allowed in full-text indexing |
| Max Server Memory (MB) | 2147483647 | 2147483647 | Maximum size of server memory (MB) |
| Max Text Repl Size (B) | 65536 | 65536 | Maximum size of a text field in replication. |
| Max Worker Threads | 0 | 0 | Maximum worker threads |
| Media Retention | 0 | 0 | Tape retention period in days |
| Min Memory Per Query (KB) | 1024 | 1024 | minimum memory per query (kBytes) |
| Min Server Memory (MB) | 0 | 16 | Minimum size of server memory (MB) |
| Nested Triggers | 1 | 1 | Allow triggers to be invoked within triggers |
| Network Packet Size (B) | 4096 | 4096 | Network packet size |
| Ole Automation Procedures | 0 | 0 | Enable or disable Ole Automation Procedures |
| Open Objects | 0 | 0 | Number of open database objects |
| Optimize For Ad Hoc Workloads | 0 | 0 | When this option is set, plan cache size is further reduced for single-use adhoc OLTP workload. |
| PH Timeout (S) | 60 | 60 | DB connection timeout for full-text protocol handler (s) |
| Precompute Rank | 0 | 0 | Use precomputed rank for full-text query |
| Priority Boost | 0 | 0 | Priority boost |
| Query Governor Cost Limit | 0 | 0 | Maximum estimated cost allowed by query governor |
| Query Wait (S) | -1 | -1 | maximum time to wait for query memory (s) |
| Recovery Interval (Min) | 0 | 0 | Maximum recovery interval in minutes |
| Remote Access | 1 | 1 | Allow remote access |
| Remote Admin Connections | 0 | 0 | Dedicated Admin Connections are allowed from remote clients |
| Remote Login Timeout (S) | 20 | 20 | remote login timeout |
| Remote Proc Trans | 0 | 0 | Create DTC transaction for remote procedures |

| Setting Name | Value | Value in Use | Description |
|--------------------------|-------|--------------|---|
| Remote Query Timeout (S) | 600 | 600 | remote query timeout |
| Replication Xps | 0 | 0 | Enable or disable Replication XPs |
| Scan For Startup Procs | 0 | 0 | scan for startup stored procedures |
| Server Trigger Recursion | 1 | 1 | Allow recursion for server level triggers |
| Set Working Set Size | 0 | 0 | set working set size |
| Show Advanced Options | 1 | 1 | show advanced options |
| SMO And DMO Xps | 1 | 1 | Enable or disable SMO and DMO XPs |
| SQL Mail Xps | 0 | 0 | Enable or disable SQL Mail XPs |
| Transform Noise Words | 0 | 0 | Transform noise words for full-text query |
| Two Digit Year Cutoff | 2049 | 2049 | two digit year cutoff |
| User Connections | 0 | 0 | Number of user connections allowed |
| User Options | 0 | 0 | user options |
| Xp_Cmdshell | 0 | 0 | Enable or disable command shell |

6 - Databases

| Database Name | Status | Recovery Model | File | File Type | File Size(MB) |
|--------------------|--------|----------------|--|-----------|---------------|
| BCSSDev | ONLINE | SIMPLE | F:\BCSSDev.mdf | ROWS | 2 |
| | | | F:\BCSSDev_log.ldf | LOG | 1 |
| FIT3 | ONLINE | SIMPLE | F:\FIT3.mdf | ROWS | 7150 |
| | | | F:\FIT3_1.ldf | LOG | 14376 |
| BCSS | ONLINE | SIMPLE | F:\BCSS.mdf | ROWS | 5028 |
| | | | F:\BCSS_1.ldf | LOG | 21614 |
| ReportServer | ONLINE | FULL | F:\Program Files\Microsoft SQL Server\MSSQL13_0.MS SQLSERVER\MSSQL\DATA\ReportServer.mdf | ROWS | 3 |
| | | | F:\Program Files\Microsoft SQL Server\MSSQL13_0.MS SQLSERVER\MSSQL\DATA\ReportServer_log.LDF | LOG | 6 |
| ReportServerTempDB | ONLINE | SIMPLE | F:\Program Files\Microsoft SQL Server\MSSQL13_0.MS SQLSERVER\MSSQL\DATA\ReportServerTempDB.mdf | ROWS | 2 |
| | | | F:\Program Files\Microsoft SQL Server\MSSQL13_0.MS SQLSERVER\MSSQL\DATA\ReportServerTempDB_log.LDF | LOG | 0 |
| selfservice | ONLINE | FULL | F:\selfservice.mdf | ROWS | 13 |
| | | | F:\selfservice_log.ldf | LOG | 132 |
| tempdb | ONLINE | SIMPLE | F:\Program Files\Microsoft SQL Server\MSSQL13_0.MS SQLSERVER\MSSQL\DATA\tempdb.mdf | ROWS | 8 |
| | | | F:\Program Files\Microsoft SQL Server\MSSQL13_0.MS SQLSERVER\MSSQL\DATA\templog.ldf | LOG | 0 |

7 - Input/Output

Read

| Database | IO Stalled Reads(MS) | Number of Reads | Average Read Stall(MS) |
|--------------------|----------------------|-----------------|------------------------|
| BCSSDev | 2124 | 73 | 28.7 |
| FIT3 | 11785813 | 456010 | 25.8 |
| BCSS | 8784278 | 430964 | 20.4 |
| ReportServer | 5240 | 141 | 36.9 |
| ReportServerTempDB | 2826 | 81 | 34.5 |
| selfservice | 18651 | 487 | 38.2 |
| tempdb | 355341 | 75802 | 4.7 |

Write

| Database | IO Stalled Writes(MS) | Number of Writes | Average Writes Stall(MS) |
|--------------------|-----------------------|------------------|--------------------------|
| BCSSDev | 591 | 32 | 17.9 |
| FIT3 | 2781836 | 157095 | 17.7 |
| BCSS | 300619376 | 12903069 | 23.3 |
| ReportServer | 701 | 36 | 18.9 |
| ReportServerTempDB | 532 | 36 | 14.4 |
| selfservice | 6501 | 309 | 21.0 |
| tempdb | 2422199 | 73344 | 33.0 |

Total

| Database | Total IO Stalls(MS) | Number of Stalls | Average IO Stall(MS) |
|--------------------|---------------------|------------------|----------------------|
| BCSSDev | 2715 | 105 | 25.6 |
| FIT3 | 14567649 | 613105 | 23.8 |
| BCSS | 309403654 | 13334033 | 23.2 |
| ReportServer | 5941 | 177 | 33.4 |
| ReportServerTempDB | 3358 | 117 | 28.5 |
| selfservice | 25152 | 796 | 31.6 |
| tempdb | 2777540 | 149146 | 18.6 |

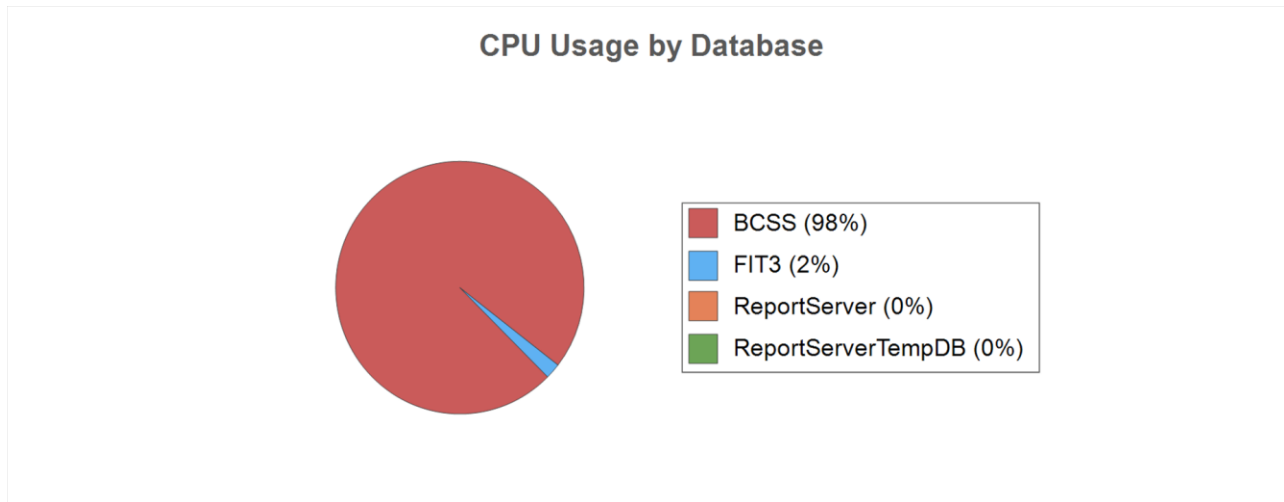
Database I/O

| Database | Total I/O(MS) | I/O Percent |
|----------|---------------|-------------|
| BCSSDev | 105 | 0 |
| FIT3 | 613105 | 4.35 |

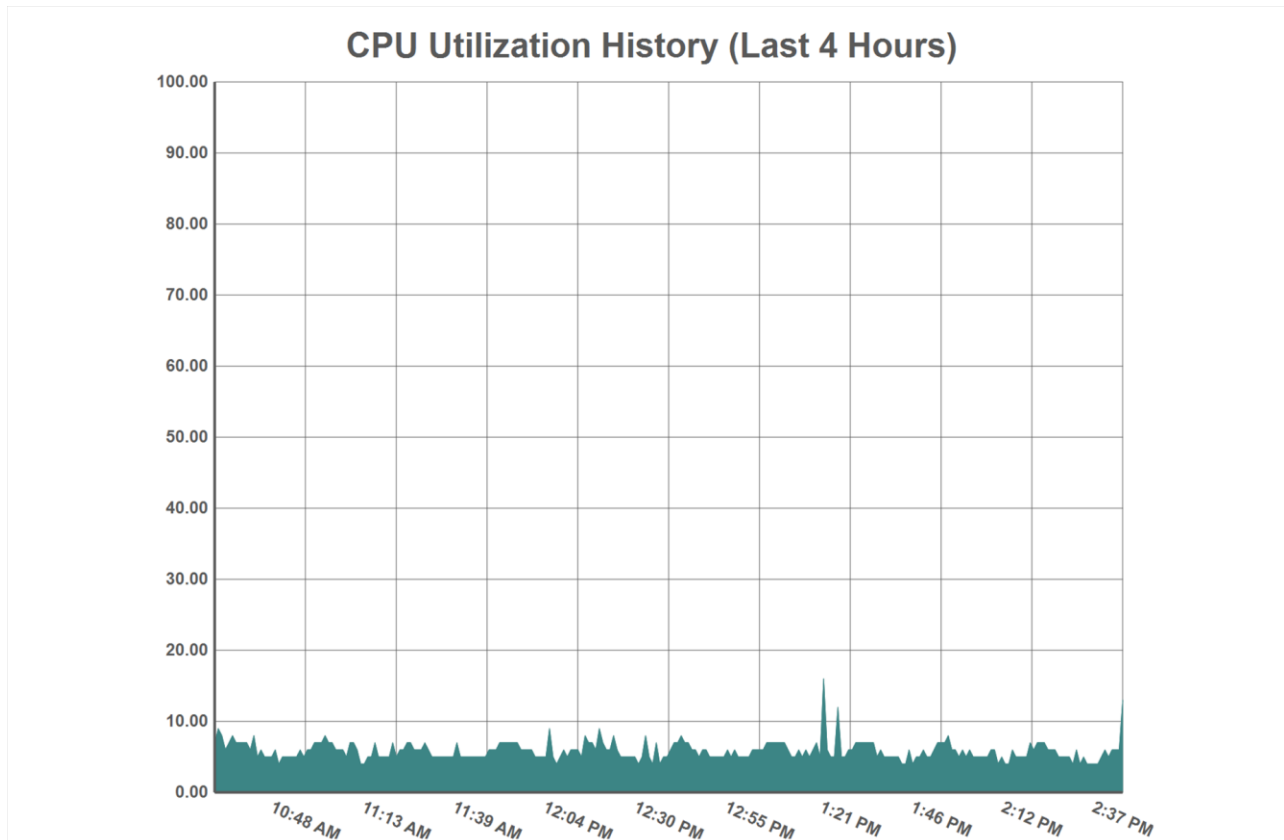


| Database | Total I/O(MS) | I/O Percent |
|--------------------|---------------|-------------|
| BCSS | 13334033 | 94.58 |
| ReportServer | 177 | 0 |
| ReportServerTempDB | 117 | 0 |
| selfservice | 796 | 0.01 |
| tempdb | 149146 | 1.06 |

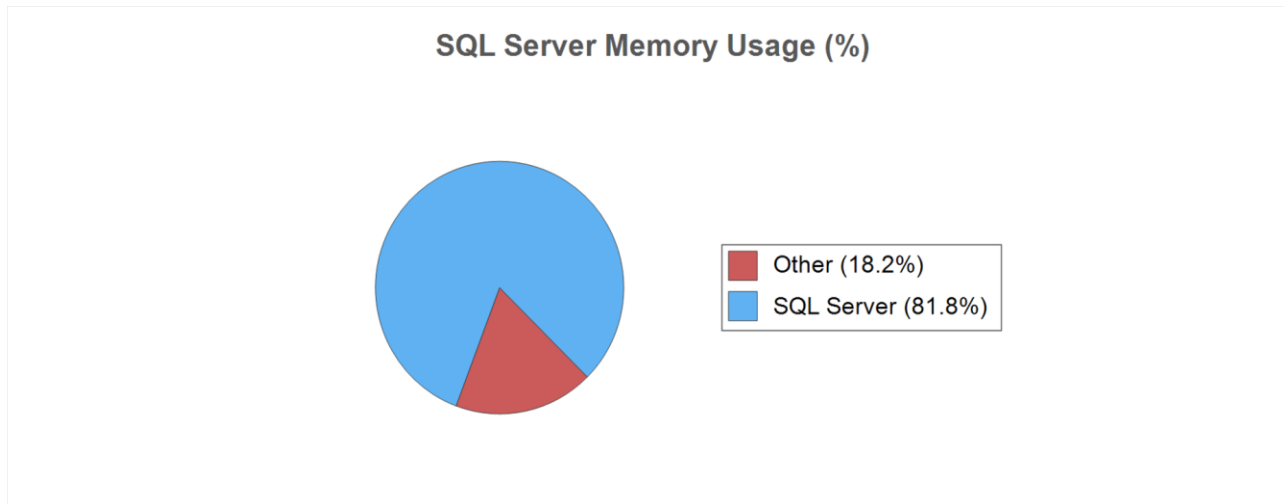
8 - CPU



| Database Name | CPU Time(ms) | CPU Time Percentage |
|--------------------|--------------|---------------------|
| FIT3 | 8632378364 | 2.18 |
| BCSS | 387930639133 | 97.82 |
| ReportServer | 976 | 0.00 |
| ReportServerTempDB | 976 | 0.00 |



9 - Physical Memory



| | |
|-------------------------------|-----------------------------------|
| Physical Memory (MB) | 12287 |
| Available Memory (MB) | 1052 |
| Total Page File (MB) | 24573 |
| Available Page File (MB) | 13220 |
| System Cache | 84496 |
| System Memory State | Available physical memory is high |
| SQL Server Memory Usage (MB) | 10048 |
| SQL Server Memory Utilization | 100 |
| Available Commit Limit (KB) | 13538152 |

10 - Wait Types

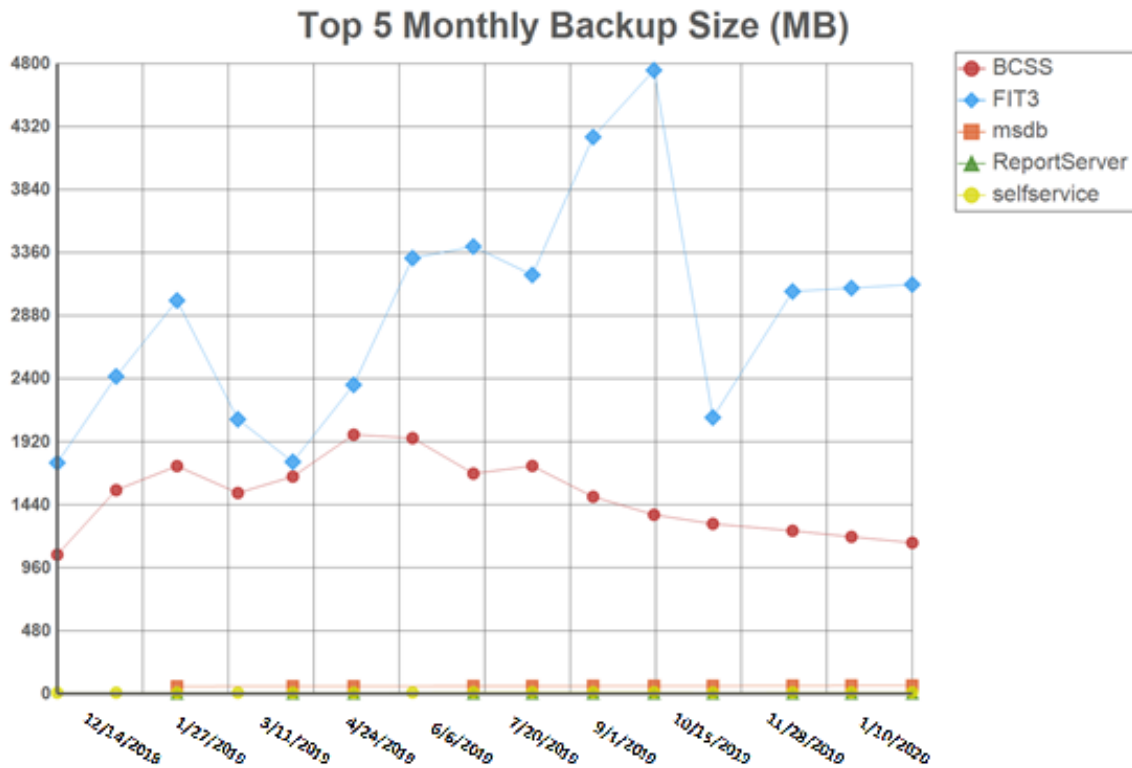
| Signal Waits (CPU) Percentage | Resource Waits Percentage |
|-------------------------------|---------------------------|
| 17.80 | 82.20 |

| Wait Type | Wait Time (seconds) | Wait Time Percentage |
|-------------------------------------|---------------------|----------------------|
| WRITELOG | 699610.07 | 78.79 |
| PREEMPTIVE_OS_AUTHENTICATIONOPS | 50087.44 | 5.64 |
| SOS_SCHEDULER_YIELD | 37885.56 | 4.27 |
| PREEMPTIVE_OS_CRYPTACQUIRECONTEXT | 19435.20 | 2.19 |
| LCK_M_IX | 12908.47 | 1.45 |
| PREEMPTIVE_OS_AUTHORIZATIONOPS | 10265.50 | 1.16 |
| PREEMPTIVE_OS_DELETESECURITYCONTEXT | 8570.35 | 0.97 |
| CXPACKET | 7941.60 | 0.89 |
| PREEMPTIVE_OS_CRYPTIMPORTKEY | 7829.73 | 0.88 |
| ASYNC_IO_COMPLETION | 7447.63 | 0.84 |
| BACKUPBUFFER | 6571.58 | 0.74 |
| BACKUPIO | 6078.49 | 0.68 |
| LCK_M_IS | 3352.11 | 0.38 |
| ASYNC_conn_IO | 2195.75 | 0.25 |

11 - Tasks

| | |
|--------------------------------|---|
| Average Tasks Count | 3 |
| Average Runnable Task Count | 0 |
| Average Pending Disk I/O Count | 0 |

12 - Backup



Most Recent Backups

The table below shows when the latest recorded backup occurred using SQL Server. Backup dates over 30 days from the time of the scan are highlighted in red. Please note that some databases may not need to be backed up regularly. This table only shows the last recorded time in SQL Server and does not account for external backup mechanisms.

| Database | Finish Date | Backup Size (MB) | Compressed Backup Size (MB) | Compression Ratio |
|--------------------|-------------|------------------|-----------------------------|-------------------|
| BCSSDev | 10/10/2019 | 1 | 1 | 1.00 |
| FIT3 | 10/10/2019 | 3522 | 3522 | 1.00 |
| BCSS | 10/10/2019 | 1432 | 1432 | 1.00 |
| ReportServer | 10/10/2019 | 3 | 3 | 1.00 |
| ReportServerTempDB | 10/10/2019 | 1 | 1 | 1.00 |
| selfservice | 10/10/2019 | 11 | 11 | 1.00 |
| master | 10/10/2019 | 2 | 2 | 1.00 |
| msdb | 10/10/2019 | 60 | 60 | 1.00 |
| model | 10/10/2019 | 1 | 1 | 1.00 |



13 - Logins

| Login Name | Session Count |
|---------------------|---------------|
| sa | 844 |
| NT AUTHORITY\SYSTEM | 2 |
| | 1 |