

## POSITION DESCRIPTION

This position description serves as the official classification document of record for this position. Please complete the information as accurately as you can as the position description is used to determine the proper classification of the position.	
<b>2. Employee's Name (Last, First, M.I.)</b>	<b>8. Department/Agency</b> TECH, MGMT AND BUDGET - IT
<b>3. Employee Identification Number</b>	<b>9. Bureau (Institution, Board, or Commission)</b> Agency Services supporting MDE, CEPI, MDCR, MCSC, & MiLEAP
<b>4. Civil Service Position Code Description</b> Info Tech Prgmr Analyst-A	<b>10. Division</b> MDCR, MCSC, & MiLEAP/MDE & CEPI Infrastructure
<b>5. Working Title (What the agency calls the position)</b> Senior Database Administrator	<b>11. Section</b> Data, Infrastructure, & Analytics
<b>6. Name and Position Code Description of Direct Supervisor</b> POTTER, WENDY S; INFO TECH MANAGER-3	<b>12. Unit</b> Data
<b>7. Name and Position Code Description of Second Level Supervisor</b> BENNETT, BOBBIJO M; STATE ADMINISTRATIVE MANAGER-1	<b>13. Work Location (City and Address)/Hours of Work</b> 702 W. Kalamazoo St., Lansing, MI / 8:00 am – 5:00 pm, Mon–Fri hybrid
<b>14. General Summary of Function/Purpose of Position</b> As a Senior Database Administrator, the employee performs a complete range of information system database analyst assignments including, but not limited to, designing, developing, testing, and implementing database systems for Center for Educational Performance and Information (CEPI) and the Michigan's Longitudinal Data System. This individual will be looked upon to provide technical support to other team members and evaluate new database solutions and technologies. Provide maintenance, support and assistance to specialist DBAs with installation and configuration of clustered database failover, database replication, and database backup solutions.	

**15. Please describe the assigned duties, percent of time spent performing each duty, and what is done to complete each duty.**

**List the duties from most important to least important. The total percentage of all duties performed must equal 100 percent.**

**Duty 1**

**General Summary:**

**Percentage: 60**

As a senior level information technology programmer/analyst, uses advanced principles and procedures of systems design methodology, structured systems design and automated data processing techniques for new and existing complex computer applications.

**Individual tasks related to the duty:**

- Research, draft and recommend database standards and policies.
- Coordinate with vendor support to address technical issues that could not be resolved in-house.
- Participate in the planning process to match emerging technologies with future business needs.
- Establish standards and guidelines for database space allocation based on best practices and implementation considerations based on business requirements.
- Calculate disk space requirements for existing and/or new installations and growth based on changing business requirements.
- Measure and/or forecast current capacity, gauge the growth of capacity over time, and factor in the anticipated capacity requirements to determine whether the existing infrastructure can sustain the anticipated workload.
- Research, analyze, and determine appropriate changes to DBMS parameters to support future application and database needs.
- Research, analyze, and determine appropriate hardware changes to support future application and database needs. Report recommendations to appropriate DBA specialist and/or technical services.
- Review results of database integrity checks. Resolve identified issues.
- Design appropriate strategy to reorganize database objects to release unused space or repair fragmentation.
- Install database management software in any environment
- Install database patches and service packs in any environment.
- Provide maintenance, support and assistance to specialist DBAs with installation and configuration of clustered database failover, database replication solutions, and database backup solutions.
- Review, install, analyze and implement security patches to be applied to remain Payment Cared Industry (PCI) compliant, vendor compliant, and Michigan Cyber Security compliant.
- Designs the security model based on set standards. Create database user accounts and schemas in production environments based on defined and approved forms and procedures.
- Define/design roles and profiles.
- Recommend standard password security policies.
- Implement data encryption.
- Design, configure, and initiate auditing with appropriate options as needed.
- Create and deploy new database in development and test environments.
- Ensures and validates the integrity and quality of the scripts to be promoted to any of the environments.
- Provide guidance to systems analysts, based on documented standards, in creating and modifying application specific database objects.
- Perform Data Export/Import/Load and data transformations between databases in production environments.
- Perform production data file transfers between different systems, across state agencies, federal government, vendors, etc.
- Analyze and resolve database space utilization in production environments. Analyze and resolve issues with database integrity in development, test, and production environments.
- Design and implement database backup solutions based on the business needs which include configuration, testing, implementation, modification, automation and monitoring of the backup and recovery solution as needed; troubleshoot and resolve more complex backup issues. Work with the Enterprise Backup and Recovery (EBUR) team to design and implement backup policy using available technology.
- Perform database restorations and point in time recovery to avoid data loss and meet service levels objectives.
- Perform troubleshooting of performance issues and provide required solution.
- Analyze databases for optimal performance and investigate poorly performing SQL statements and offending database sessions. Perform database performance tuning by identifying index candidates, updating database statistics, using appropriate optimization techniques, optimizer hints and other methods. Document tuning procedures.
- Perform thorough analysis and investigation to resolve locking conflicts. (For example: Locking conflicts can be shared or exclusive. Shared involve multiple users accessing the data or table at the same time. Exclusive is when only one user or process can access the data at a time. Locking conflicts can also be at different levels and an incorrect resolution can cause corruption or loss of data.)
- Analyze and resolve issues related to undo/redo/transaction log configuration and sizing in development, test and production environments.
- Analyze and resolve server generated and threshold-based alerts. Perform resolution for the alert causes and provide recommendations for setting up appropriate alert thresholds.
- Implement defined initialization parameters, database instance memory structures and physical data layout for optimal performances.
- Monitor database jobs and scheduled processes, perform troubleshooting and provide resolution for any issues with jobs/processes as necessary. Document solution and provide root cause analysis.
- Agrees to follow all policy, standards and procedures of DTMB.
- Perform remediation tasks, due to database scans

**Duty 2****General Summary:****Percentage: 20**

This position is responsible for Database Administration and Technical Support for the Center for Educational Performance and Information.

**Individual tasks related to the duty:**

- Define database objectives and projects based on administrative goals and policy direction.
- Establish, promote, and enforce the utilization of proper database policies, methods, processes, and procedures in support of program objectives.
- Coordinate the interaction of highly complex database activities with technical activity external to the database specialty.
- Plan and implement methods to ensure data integrity is maintained through established standards and strategies for disaster recovery, database security, and database design.
- Establish and direct projects, based on the department-wide database environment objectives, for the research, development, recommendation, purchase, installation, maintenance and upgrades of the Longitudinal/Multidimensional Database Management System (DBMS) and DBMS-related software.
- Plan, coordinate, and execute project tasks for the technical activities of security, audit, and disaster recovery management, and for DBMS performance.
- Establish and enforce database operation schedules and performance standards to ensure maximum database availability.
- Direct and coordinate database technical configuration modifications and perform DBMS problem resolution.
- Backup other DBA's on team.

**Duty 3****General Summary:****Percentage: 20**

Transactional Database Analysis, Design, Implementation and Administration.

**Individual tasks related to the duty:**

Manage the definition, security, and use of data in common-use-databases. Through business area analysis and data model reviews, identify and develop division database candidates. Promote data sharing and data modeling concepts and methods.

- Analyze business data requirements.
- Design logical and physical data models.
- Implement and maintain physical data models.
- Generate and maintain database definition language for development, test, and production database environments.
- Populate and maintain data for development, test, and production database environments
- Provide longitudinal/multidimensional database support for multiple concurrent development projects.
- Assist in development effort by implementing business rules and logic.
- Assist developers in application design issues as they relate to the longitudinal/multidimensional database.
- Assist developers in writing efficient and optimized SQL & MDX queries.
- Assist developers in application problems determination/resolution.
- All other tasks necessary and proper of a resource in this position.

**16. Describe the types of decisions made independently in this position and tell who or what is affected by those decisions.**

- Decisions on logical and physical designs for Database Management systems
- Decisions on operational errors and handling unexpected problems associated with hardware or software.
- Decision on the approach and implementation of locating and fixing system problems.
- Decisions involving administration the warehouse.
- Decision in support of DTMB standards.

**17. Describe the types of decisions that require the supervisor's review.**

- When deadlines are being affected.
- Deviations from practices, standards, or written policies.
- Decisions or actions that are unethical or could be construed as nonstandard for a professional in a similar position
- When the decision results in a business process change.
- When the decision results in a change in direction or scope of current DTMB projects.
- When the decision impacts matters that affect the budget.
- When the decision impacts action to be taken in the event of a major security problem.
- When the decision impacts the Agency's IT strategic direction.

**18. What kind of physical effort is used to perform this job? What environmental conditions in this position physically exposed to on the job? Indicate the amount of time and intensity of each activity and condition. Refer to instructions.**

Standard office environment. Use of personal computer using keyboard and mouse to perform trouble shooting, create and edit technical materials, communications with staff and clients, and reports. A minimum effort may be required to walk or drive to other locations. Majority of work is performed sitting at an ergonomic prepared workstation suitable for a personal computer or attending meetings in standard conference room settings. This position is subject to stress and pressure to resolve problems quickly and effectively.

**19. List the names and position code descriptions of each classified employee whom this position immediately supervises or oversees on a full-time, on-going basis.**

**Additional Subordinates**

**20. This position's responsibilities for the above-listed employees includes the following (check as many as apply):**

- |   |                                    |   |                                   |
|---|------------------------------------|---|-----------------------------------|
| N | Complete and sign service ratings. | N | Assign work.                      |
| N | Provide formal written counseling. | N | Approve work.                     |
| N | Approve leave requests.            | N | Review work.                      |
| N | Approve time and attendance.       | N | Provide guidance on work methods. |
| N | Orally reprimand.                  | N | Train employees in the work.      |

**22. Do you agree with the responses for items 1 through 20? If not, which items do you disagree with and why?**

Yes

**23. What are the essential functions of this position?**

- This position is responsible for the design, installation, upgrades, performance, development, construction, database security, audit, integration, and disaster recovery methods, and maintenance of the longitudinal/multidimensional database system.
- Enforcement of appropriate database policies, standards, methods, and procedures. Provides direction, leadership and training of database staff.
- Database tuning through the use of appropriate indexing, updating stats and monitoring query performance in order to identify potential issues.
- This job is heavily involved with ETL (Extract, Transformation & Load) processes for loading data to the data warehouse. Use of SQL scripting is a large part of this job. SQL scripting proficiency is necessary.
- This position may be required to work mandatory Overtime and required Paid On-Call rotation.
- Occasional travel may be required by all mode of transportation, in state and out of state.

Competencies: Customer Focus, Technical and Professional Knowledge and Skills, Communication, Adaptability, Building Strategic Working Relationships, Innovation and Initiating Action.

**24. Indicate specifically how the position's duties and responsibilities have changed since the position was last reviewed.**

Establishment

**25. What is the function of the work area and how does this position fit into that function?**

This agency is responsible for establishing a centralized repository for all educational data with a primary focus on K-12 data. Prior to CEPI, K-12 data was maintained in decentralized databases, mainly in dBase format or in MS Access databases. Individual program units within the Michigan Department of Education managed many of the databases. This position serves as a member of the database team both for the Michigan Student Data System (MSDS), Michigan Student Longitudinal Data System MSLDS and the MiSchoolData System benefiting the educational community. The system is comprised of core educational databases: 1) Registry of Educational Personnel (REP), 2) Educational Entity Master (EEM), 3) School Infrastructure Data (SID). The user interfaces for these databases are under various stages of design, development, and testing. Several of these systems are being re-developed and updated at this time. This position will provide the primary support of the longitudinal/multidimensional database (aka warehouse) used to store the historical data collected from these core systems for longitudinal reporting and analysis.

**26. What are the minimum education and experience qualifications needed to perform the essential functions of this position.**

**EDUCATION:**

Information Technology Programmer/Analyst 9

Possession of an Associate's degree with 16 semester (24 term) credits in one or a combination of the following: computer science, data processing, computer information systems, data communications, networking, systems analysis, computer programming, information assurance, IT project management or mathematics.

Information Technology Programmer/Analyst P11/12

Possession of a Bachelor's degree with 21 semester (32 term) credits in one or a combination of the following: computer science, data processing, computer information systems, data communications, networking, systems analysis, computer programming, information assurance, IT project management or mathematics.

**EXPERIENCE:**

**Information Technology Programmer/Analyst 12**

Two years of professional experience equivalent to an Information Technology Infrastructure or Programmer/Analyst P11.

**Alternate Education and Experience**

**Information Technology Programmer/Analyst P11 - 12**

Possession of an associate's degree with 16 semester (24 term) credits in computer science, information assurance, data processing, computer information, data communications, networking, systems analysis, computer programming, IT project management, or mathematics and two years of experience as an application programmer, computer operator, or information technology technician; or two years (4,160 hours) of experience as an Information Technology Student Assistant may be substituted for the education requirement.

OR

Completion of high school and four years of experience as an application programmer, computer operator, information technology technician, or four years (8,320 hours) of experience as an Information Technology Student Assistant may be substituted for the education requirement.

**KNOWLEDGE, SKILLS, AND ABILITIES:**

- Knowledge and understanding of SQL Analysis services
- Knowledge and understanding of the star and snowflake design of multidimensional databases.
- Knowledge and experience with relational database administration and experience with Microsoft SQL Server database administration is required. This knowledge and experience must be current and relevant.
- Working knowledge of operating systems, network administration, and project management.
- Experience writing Structured Query Language (SQL) and stored procedures is required.
- Knowledge and/or experience in creating a data warehouse are required.
- Ability to plan, direct, and coordinate department-wide Database Administration objectives.
- Ability to model data, design databases.
- Ability to define policies, standards, and procedures based on database concepts.
- Skills in interpersonal relationships and communications.
- Ability to exercise independent judgment and work well under pressure.
- Ability to diagnose and resolve problems quickly.
- Ability to create oral and written communications.
- Ability to be organized, creative, adaptable to changing priorities, and dedicated to the security and data management responsibilities of the position.
- Ability to establish and maintain effective relationships with clients and matrix support teams and treat others fairly.
- Ability to keep customers and team members informed and respond to customer requests in a timely manner with positive communication.
- Ability to resolve complex problems in a timely manner and seek optimum solutions.

**CERTIFICATES, LICENSES, REGISTRATIONS:**

None

*NOTE: Civil Service approval does not constitute agreement with or acceptance of the desired qualifications of this position.*

***I certify that the information presented in this position description provides a complete and accurate depiction of the duties and responsibilities assigned to this position.***

\_\_\_\_\_  
Supervisor

\_\_\_\_\_  
Date

**TO BE FILLED OUT BY APPOINTING AUTHORITY**

Indicate any exceptions or additions to the statements of employee or supervisors.

N/A

***I certify that the entries on these pages are accurate and complete.***

\_\_\_\_\_  
AMY MILLER

Appointing Authority

\_\_\_\_\_  
4/15/2026

Date

***I certify that the information presented in this position description provides a complete and accurate depiction of the duties and responsibilities assigned to this position.***

\_\_\_\_\_  
Employee

\_\_\_\_\_  
Date