NORTH DAKOTA
CLASS DESCRIPTION
ND Human Resource Management Services
Phone: (701) 328-3290

Class Code(s): 0148
0149
0150

DATABASE DESIGN ANALYST

SCOPE OF WORK:

Work activities are associated with the design, development, and maintenance of databases required in support of computer systems developed to operate within a major information technology environment running multiple databases at different versions across multiple operating systems on multiple platforms.

DUTIES PERFORMED AT ALL LEVELS:

- Design and create database files needed to support program and system design, scope, and limitations.
- Review all programming code to ensure continuous efficient database access for input, retrieval, and update of data.
- Update the data dictionary to create or change file structures and definitions, field names and definitions, and related comments necessary to support overall file management.
- Ensure database integrity; schedule database backup; provide database journalizing; back out incorrect job executions; recover lost data; reconstruct corrupt files; restore lost data from backup files.
- Review and submit jobs requiring production database access.
- Transfer and maintain production program code.
- Assist programmers or write conversion programs to support changes in database structure; apply conversions, update all journals and database dictionary, and verify integrity of converted data.
- Assist in providing twenty-four hour coverage for database support.
- Maintain current procedure manuals for the maintenance of databases on existing systems.

> NOTE: The duties listed are not intended to be all-inclusive. Duties assigned any individual employee are at the discretion of the appointing authority.

DATABASE DESIGN ANALYST I   0148
GRADE L*

LEVEL DEFINITION:

Work may involve all aspects of analysis, design, development, and implementation. However, the incumbent most often will perform tasks related to one or more specific areas and be involved in the remaining areas in an assistant or learning capacity.

CLASS CODES: 0148
       0149
       0150

ND Class Description
Database Design Analyst

ADDITIONAL DUTIES PERFORMED AT THIS LEVEL:

- Design, develop, and maintain databases on one major database management system.
- Utilize all related database management system programming products and utilities used in database development and maintenance.
- Provide assistance to other analysts in the development and design of databases on other database management systems.

MINIMUM QUALIFICATIONS:

Requires a combination of college level coursework in computer science or computer information systems plus work experience in the design, development, and maintenance of databases and/or software application required in support of computer systems totaling five years. Or a combination of college level coursework in another field plus work experience as described totaling seven years.

DATABASE DESIGN ANALYST II   0149
GRADE M*

LEVEL DEFINITION:

Work at this level will be considered fully qualified with few, if any, limitations in scope. Incumbents will generally perform all tasks in one or more specific areas, i.e., analysis, programming, maintenance, etc. and be assigned additional projects to manage or oversee. Complexity of projects will include service to multiple locations; involve a variety of platforms and/or connectivity methods; and require use of a variety of software tools.

ADDITIONAL DUTIES PERFORMED AT THIS LEVEL:

- Design, develop, and maintain databases on multiple database management systems such as ADABAS, Oracle, IMS/DL1, DB2, etc.
- Meet with analysts and users to assist with initial systems design, screen/report layouts, and review of workflow charts.
- Monitor database performance, check performance statistics, reorganize databases to achieve optimal performance, analyze historical reports to identify and correct performance deficiencies.
- Coordinate with programmers, users, vendors, and technical services to resolve problems with a variety of software including purchased software packages, programs developed in-house, and programs developed by user agencies.
- Provide training to programmers, user agencies, etc. to advise on parameters for database development and programming techniques to optimize database usage and respond to special programming needs.

- Utilize all related database management system programming products and utilities used in database development and maintenance on multiple database management systems that operate in a shared environment.
- Assist agencies in determining which database management system best suits their needs.

MINIMUM QUALIFICATIONS:

Requires a combination of college level coursework in computer science or computer information systems plus work experience in the design, development, and maintenance of databases required in support of computer systems totaling six years. Or a combination of college level coursework in another field plus work experience as described totaling eight years.

DATABASE DESIGN ANALYST III   0150
GRADE N

LEVEL DEFINITION:

Work at this level will be considered fully qualified and individuals will generally be involved in all areas of work common to this series, i.e., analysis, design, and development, programming, maintenance, etc. Incumbents will have extensive knowledge of the internal workings of databases. Work will involve projects with increased complexity usually based on the scope of the project that may include service to multiple locations; involve a variety of platforms and/or connectivity methods; a variety of software development tools; and evaluate, customize, and configure database/operating system parameters for optimization of performance. In organizations with large or complex applications, individuals may specialize in one area of work common to this series. Incumbents at this level may also be assigned supervisory and project management responsibility.

ADDITIONAL DUTIES PERFORMED AT THIS LEVEL:

- Design and develop in-house procedures/applications to identify potential performance problems and assist with daily maintenance tasks; monitor database storage usage and fragmentation.
- Recommend and setup standards for client/server applications, mainframe applications, and outside consultants and vendors working on state applications.
- Provide extensive troubleshooting and problem solving of database and application development issues for ITD and other state agency applications.
- Work with vendors in support of database and administration toolsets enhancements that are beneficial to state applications.
- Install and monitor database repositories for database administration tools that run on multiple platforms; install software for tools; work with vendors on upgrades and problems.

- Install new and upgrade existing databases and administration toolsets; coordinate with development on testing and implementing enhancements and new features/functions.
- Setup performance and tuning procedures for database access; assist and train application development staff, consultants, agency coordinators, and technical services in proper methods of database access.
- Setup/change database backup and recovery procedures and disaster recovery procedures based on department/application needs.
- Setup, maintain, and troubleshoot distributed database access across multiple platforms.
- Develop and maintain a knowledge base to support responses to queries from management, users, vendors, and software development staff.
- May provide 24-hour coverage for database support; assist with on-call support/training for other DBA's.
- Evaluate project costs and time requirements.
- Perform supervisory functions such as coordinating staff meetings; setting up database staff on-call list; preparing monthly status reports for management; assigning work to database staff; determining work priorities; and conducting performance evaluations on employees.

MINIMUM QUALIFICATIONS:

Requires a combination of college level coursework in computer science or computer information systems plus work experience in the design, development, and maintenance of databases required in support of computer systems totaling eight years. At least one year of the work experience must have included working as a project manager or team leader. Or a combination of college level coursework in another field plus work experience as described totaling ten years. At least one year of the work experience must have included working as a project manager or team leader.

Eff. Date: 5/93
Rev: 8/96 – Rewritten in current format.
Rev: 4/98 – Added third level and assigned payline exception grade.
Rev: 11/01 – Revised minimum qualifications.
Rev: 7/12 – Conversion to Hay System; *Pay Grade Exceptionassigned (I & II level only) 7/12; NDAC 4-07-04-11 & 4-07-04-12