

**Job Class Profile: Database Analyst****Pay Level: CG-42 Point Band: 994-1037**

Factor	Knowledge	Interpersonal Skills	Physical Effort	Concentration	Complexity	Accountability & Decision Making	Impact	Development and Leadership	Environmental Working Conditions	Total Points
Rating	7	6	2	5	7	6	6	3	2	
Points	327	100	13	24	210	130	124	64	21	1013

**JOB SUMMARY**

The Database Analyst leads the design, analysis, development and support of client server database systems to government departments, agencies, boards and commissions.

**Key and Periodic Activities**

- Consults with coworkers and contractors regarding documents and guides, development of standards/policies/procedures, database installation standards, and data sanitization records.
- Configures and deploys complex systems. Performs installation, configuration and system integration, makes various tools and applications work with disparate data stores, and implements Public Key Infrastructure (PKI) for various systems.
- Responsible for the efficient and successful operation of relational database systems ensuring security, disaster recovery, data integrity, and data backup. Enforces data integrity through implementation of industry best practices and standards for securing database environments.
- Trouble shoots application performance issues and system errors. Analyzes system performance to ensure systems operate at acceptable levels.
- Ensures accurate and efficient data recovery in the event of data loss by developing, monitoring, maintaining and enforcing data archiving, data backup, import/export and disaster recovery procedures that adhere to industry standards and client business requirements.
- Provides lead expertise to multiple projects in the architectural design, development, analysis and the implementation of client/server and N-Tier relational database systems. Monitors compliance to standards.
- Plans and coordinates the transition of new systems into operation production environments.
- Performs database optimization, normalization and de-normalization, and designs logical and physical data models to ensure successful and efficient database design.
- Writes database triggers and stored procedures, using PL/SQL, T-SQL and other languages used in system development and enhancements.
- Performs production/development/staging environment refreshes including the design and implementation of data anonymization routines.
- Manages work orders, support requests, and supporting documentation regarding all completed operation and project related work.

### Key and Periodic Activities

- Prepares documentation such as disaster recovery guides and database build books.
- Recovers and restores database and/or application servers necessitated by unexpected system failures.
- Performs patch management to mitigate security threats and performance issues.

## SKILL

### Knowledge

#### General and Specific Knowledge:

- Expert knowledge of the administration of Oracle, SQL Server and MySQL database systems, and operating systems as well as Oracle Application Server components such as HTTP server, Single Sign On Processes, Web Cache and how these components can be integrated. Knowledge of Information Protection and Privacy regulations and policies.

#### Formal Education and/or Certification(s):

- Minimum: 3 year specialized post secondary diploma with major coursework in computer studies.
- As the industry is constantly evolving and changing, this position requires ongoing professional development and training.

#### Years of Experience:

- Minimum: 4-5 years experience.

#### Competencies:

- Wide variety of computer related skills.
- Ability to integrate complex systems, to coordinate a range of work/projects simultaneously, and to develop and/or design new solutions to address problems.
- Strong project management skills.
- Strong analytical and communication skills.

### Interpersonal Skills

- A range of interpersonal skills include listening to clients and asking questions to determine where a problem may originate; working cooperatively with others to exchange advice, or to share expertise with coworkers and clients when necessary; facilitating project objectives such as investigating the viability of a particular solution or architecture, or understanding the desired outcome of a database or server setup in order to coordinate it with other departmental groups to implement a solution; and providing expert advice.
- Communication occurs with clients, employees in the immediate work area, Department/Group, in other departments and with supervisors, managers and professional advisors.
- The most significant and frequent contacts are with: (1) the Manager of IT in situations where approval is required such as data transfers or production restores, (2) the Team Lead regarding workload, completion of projects, and/or prioritizing issues, (3) and the Executive Director or Director depending on the severity of issues at hand, such as disabled security systems which may require Director approval or intervention. Interaction at this level may be required when

providing technical expertise/advice either directly or via steering/project committees.

## EFFORT

### Physical Effort

- Work demands do not result in considerable fatigue requiring periods of rest. Work provides the opportunity to move around within the office environment even though there is a requirement for sitting at a desk utilizing a computer for a majority of time.
- There is limited requirement for lifting or moving objects.
- There is a requirement to stand and walk when visiting a remote site or data center when issues cannot be resolved.
- Constant fine finger precision work when using a computer.

### Concentration

- **Visual** concentration is required when reviewing log files or other performance indicator/metrics or restoring databases.
- **Auditory** concentration is required when using telephone headset for extended periods of time while communicating with other resources to troubleshoot issues or coordinate complex tasks.
- **Time pressures and deadlines** occur when trying to recover systems that are down or disabled. Security issues must be addressed in an expeditious manner and may have public/political impact. When working on projects there are pre-defined dates/milestones that must be met; **interruptions** often occur when individuals/departments request assistance directly rather than going through the Service Desk. Interruptions vary from formal to informal requests which impact priority issues.
- **Control over the work pace** is occasionally impacted by external variables such as waiting on others to complete a section of work which is required prior to implementing the incumbent's work. Unforeseen circumstances such as system failures or power outages may affect the pace of work or the ability to achieve timelines.
- **Exact result and precision** can occur from the many repetitive tasks such as applying multiple log files for recovering databases or search and/or replacing common code with PL/SQL code. Exact results are also required when implementing changes to existing production applications as incorrect results may cause disruption to the application and clients.

### Complexity

- Work tasks are generally different and related involving a wide range of responsibilities and situations.
- Problems range from being simple with obvious solutions to highly technical problems with a limited number of standardized solutions such as designing logical and physical data models as well as analyzing system performance to ensure systems operate at acceptable levels which requires an in-depth knowledge of this specialized area as well as ongoing knowledge of industry as it constantly evolves.
- The most typical challenges involve restoring and recovering databases. Depending on the age/nature of the system it may be in an unrecoverable state or refreshing a production system into a staging/development environment requiring analysis to resolve and restore data. Another challenge involves deployment, configuration and integration of database systems and business

intelligence tools. When deploying database systems it is often necessary to deploy and integrate application server systems. This often requires configuration of server operating systems, installing and patching database software which requires research and instruction on the web.

- When addressing challenges or problems, Database Analysts may consult departmental policies and guidelines which outlines procedures, best practices, and department standards; legislation such as ATIPP or Management of Information; database/server build books; operational manuals; historical knowledge from Help Desk Software or emails; the internet; team members; Information Management and Team Leads/Managers/Directors; system chart authorities; service level agreements; data retention schedules; application management portals and application portfolio; and detailed architectural diagrams.

## RESPONSIBILITY

### Accountability and Decision-Making

- Work tasks are somewhat prescribed or controlled. Decisions are made daily regarding how to proceed with accomplishing various tasks and projects using existing prescriptions and procedures which ensure change management standards are followed and documented. Database Analysts provide lead expertise in multiple projects and plans and coordinates the transition of new systems.
- Decisions which can be made without supervisory approval include decisions to recover/restore failed production systems, determining which version of software to install or patches to apply, and implementing security recommendations.
- Sensitive information that is copied or moved requires an approval process be followed. Changes to production systems also require approval through a change management process. Change management processes are in place ensuring supervisors are informed of changes or incidents and that appropriate approvals are received.
- Analyst exercises discretion within predetermined limits and procedures when installing or configuring a database the appropriate level/version of the software to be installed is generally predetermined by system requirements and/or established standards; when restoring databases as Analysts have a wide window in which to operate when determining how to restore the database and which parties to involve or if blanket approvals have already been granted to refresh certain environments, the Analyst can work within these approvals to perform subsequent refreshes and when certain safety configurations can be applied based upon interpreted guidelines and/or directions.
- A high level of independent discretion and judgement is required when acting within an emergency situation to restore services.

### Impact

- Impacts generally affect immediate work areas, the department and organization, outside the organization, and on clients/public.
- Work activity impacts on information, equipment, finances, facilities, and corporate image. The nature of the activity dictates how/where the results are felt. For example, regularly scheduled maintenance and unanticipated system loss may result in service interruptions being experienced at varying levels. Actions and decisions determine the availability of corporate

and public information systems.

- Errors may result in security breaches, data loss, disaster etc., and can range from limited to extreme impact depending upon the error. Many government departments and agencies rely upon database systems such as financial systems, payroll, health data, support enforcement, justice/corrections software and can be positively or negatively impacted by the work of the Analyst.
- Change management procedures and disaster recovery plans are in place to reduce the likelihood of errors causing extreme disruption.
- Identification and resolution of errors normally occurs within hours of problem identification.

#### **Development and Leadership of Others**

- Not responsible for the direct supervision of staff.
- Incumbents provide on the job advice/guidance and direction, feedback, on the job training, and act as a mentor to new employees.
- When assigned to specific projects, Analysts may indirectly be considered a lead role in the coordination of activities/milestones as they pertain to meeting their project related objectives, such as coordinating work efforts with multiple teams to ensure server/database/application infrastructure are properly configured and maintained.

## **WORKING CONDITIONS**

#### **Environmental Working Conditions**

- There is no requirement for safety precautions or equipment.
- There is no likelihood of minor cuts, bruises, abrasions, injury, or illness causing disability
- Typically no adverse environmental conditions except those related to lack of privacy from working in an open office environment.