

Flathead County is an equal opportunity employer. Flathead County shall, upon request, provide reasonable accommodations to otherwise qualified individuals with disabilities.

This job description is intended to reflect core areas of responsibility and an incumbent employees' knowledge and skill set needed to complete those functions. This document is not intended to catalog each individual duty; employees are routinely called upon to address emerging employer requirements in alignment with individual work units and assignments of jobs. The job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer change.

Job Title:	Software Engineer and Database Administrator	Job Code:	03130
Department:	Information Technology	Pay Grade:	Std 41
Reports to:	Information Technology Director	FLSA Status:	<input type="checkbox"/> Non-Exempt <input checked="" type="checkbox"/> Exempt

Department Overview: The Information Technology (IT) Department provides a reliable and secure network infrastructure to support each of the County Departments' data and voice systems. The IT Department provides support for desktop computers, laptops, printers, scanners, mobile devices, telephones and Internet services. This Department maintains the County's network equipment including file servers, storage arrays, switches, routers, fiber optic and copper cable links throughout the campus and remote offices. The IT department's programming staff provides both web and conventional programming services that allow other County Departments to function efficiently, while providing for the security and integrity of County systems and data. This Department implements and enforces the County's Information Technology policies.

Job Summary: Plans, designs, develops, debugs, implements and supports web and/or desktop applications, databases and servers. Develops software for the County's various departments, and supports public-facing services. Additionally, this employee develops interfaces between both in-house software as well as interfaces to and from third-party software. The tasks performed require experience in writing programs (software), performing systems analysis work, secure application development and virus/malware prevention techniques. This employee is required to perform database administration tasks including, but not limited to, installing, upgrading, configuring and administering database application software, creating and maintaining databases, conducting performance checks and monitoring, creating backup jobs, and all other database related tasks.

Essential Functions (Major Duties or Responsibilities): *These duties are the essential functions and are not all-inclusive of all duties that the incumbent performs.*

- Analyze problems and existing procedures of departments to make recommendations as to the feasibility of converting systems for automating processing.
- Collaborate with County users and departments to define, develop, and document web and/or desktop application software's business requirements, objectives, deliverables, and specifications.
- Write, code, test, and debug software programs and applications according to specifications.
- Write user guides to train application operators.

- Write programming scripts to enhance functionality and/or performance of proprietary and purchased applications if necessary.
- Create interfaces between internal County applications as well as interfaces between County applications and third-party software.
- Create custom queries and reports from both proprietary and purchased applications for end users as needed.
- Regularly analyze and review software log files and related firewall logs to ascertain security risks and to improve security posture.
- Install, configure and administer database software. Perform database software upgrades.
- Create and monitor database backup jobs. Perform database recovery operations.
- Design detailed file and record formats for various database applications, design queries, views and stored procedures.
- Optimize databases for performance and stability. Troubleshoot malfunctions of database systems for the purpose of resolving operational issues and restoring services.
- Install and upgrade services and tools required for development and production system support, including internal servers used for development.
- Provide technical guidance to other staff members and trainees.
- Communicate with co-workers, management, other departmental employees and members of other governmental agencies.
- Provide reports on progress against benchmarks for assigned program development and implementation projects. Track time and progress through the help desk ticketing software.
- Participate in the planning and implementation of the IT Continuity of Operations (COOP) plan and disaster recovery operations.

Non-Essential Functions:

- Perform other duties as assigned including but not limited to providing IT support to other departments in the County besides the ones normally assigned, manage special projects, attend meetings and conferences, provide backup for other staff, participate in training, etc.

- Attend conferences, workshops, and training to gather information and receive instruction on new technology in the Information Technology Field and to coordinate efforts with external vendors and partners.

Physical Demands and Working Conditions:

- The employee is constantly required to use hands to handle or feel objects and to type and use the keyboard and mouse.
- Frequently required to sit, talk, write, listen and read.
- The employee may infrequently be required to stand, walk, climb, balance, stoop, kneel, crouch or crawl and reach with hands and arms.
- The employee is infrequently required to lift and/or move up to 25 pounds.
- The noise level of the building is usually moderate; however, employee is occasionally subjected to loud equipment noise.
- Work is typically performed in a normal office environment.
- May require weekend or after-hours work in the case of disasters, emergencies or special projects.

Supervision Exercised: The primary function of this job is not in a supervisory capacity.

Knowledge, Skills, and Abilities:

The job requires knowledge of:

- The operation and capabilities of computer systems and servers.
- Microsoft Windows Operating systems.
- Microsoft Windows programming languages (such as Visual Basic or Visual C++), object oriented programming products (such as C#, Jade or other Java-based software).
- Web technologies and languages such as PHP, HTML, CSS and JavaScript.
- Management of web servers such as Apache and Microsoft IIS.
- Databases such as MySQL, Microsoft SQL Server, and Jade; database design and maintenance.
- Systems analysis and "best practice" development and security techniques.
- The trends and developments in the field of information technology including hardware, software, network security, and systems analysis.
- The principles and practices of financial administration, organizational structures, and staffing patterns.
- Basic communications and network operation and protocols.
- IT, HIPAA and CJIN security policies, including password policies and implementation.

The job requires skill in:

- Developing object-oriented computer/web applications in Visual Basic, PHP, HTML, CSS, JavaScript, and/or Jade.
- Application and database development tools such as Microsoft Visual Studio, Adobe Dreamweaver, and Flexera Installshield.
- Database administration capabilities with databases such as Microsoft SQL Server and MySQL.
- Communicating effectively orally and in writing.
- Organization and planning.
- Understanding and implementing an IT COOP plan.

The job requires the ability to:

- Analyze operations, to organize component parts into a logical system, and to evaluate systems and routines.
- Design databases for optimal usage, performance and reliability.
- Demonstrate knowledge of current trends and developments.
- Communicate effectively verbally and in writing and to explain technical information in a clear and easy-to-understand manner.
- Provide technical guidance to other staff members and trainees.
- Establish and maintain effective working relationships with co-workers, management, other departmental employees and members of other governmental agencies.
- Understand and follow HIPAA requirements.
- Meet the security approval by the Flathead County Sheriff's Office and the Federal CJIN requirements.

Education and Experience:

The job requires a bachelor degree in Computer Science, Computer Engineering or related field and four years of application or web development experience including one year of systems analysis experience and one year of database administration or any equivalent combination of experience and training that indicates possession of the knowledge, skills, and abilities listed.

Action	Date	Reference
Adopted	02/23/2004	Commissioners' Minutes
Revised	10/25/2006	Commissioners' Minutes
Revised	07/01/2014	HR Salary Recommendation Transmittal Signed 5/28/2014
Revised	08/01/2016	Commissioners' Minutes
Adopted	06/19/2017	Position Grade Changes Effective 7/1/2017 (FY18)