Class Title: <u>Software Engineer IV</u>   Class Code: <u>393</u>
Department: <u>Information Systems</u>   Eff. Date: <u>03/09/17</u>
FLSA: Exempt   Grade: <u>31</u>

GENERAL PURPOSE

Under general guidance and direction from the Director of Information Systems or designated manager, develops, tests, debugs and supports .NET MVC web applications and SQL databases.

EXAMPLE OF DUTIES (Any one position does not include all of the duties listed; nor do the listed examples include all duties which may be found in positions of this class.)

Modifies, maintains, and updates existing programs of a standard nature.

Develops new software applications to adhere to designs supporting internal business requirements or department users.

Coordinates with team lead to determine final objectives, desired reports, historical data to be preserved and the data sources.

Designs and applies standard logic for individual applications programs and writes program instructions in a high level program language and/or machine level languages.

Standardizes the quality assurance procedure for software. Oversees testing and develops fixes.

Assists in the preparation of supporting procedures, forms and documentation.

Helps maintain and manage the CMS for the county.

Contacts County departments to analyze information system needs and requirements; assists in designing and documenting information systems; designs flowcharts of current data flows.

Integrates "packaged" software and information systems used on other computers to be operationally compatible with Davis County's computers; maintains application programs.

Performs programming assignments to include coding, testing, debugging, and documenting programs.

Performs related duties as assigned.

MINIMUM QUALIFICATIONS

1.   Education and Experience:

Graduation from an accredited college or university with a Bachelor's Degree in computer programming, software engineering, or related field, plus seven (7) years of

paid employment in the field of computer programming; *OR* an equivalent combination of education and experience substituting one for the other on a year-for-year basis.

Education or experience must include:
- C#.NET 4.5 Framework or higher
- ASP.NET MVC and Web API
- Visual Studio or Visual Studio Code
- SQL Server and the SQL language
- JavaScript
- HTML5 and CSS3
- AngularJS or other JavaScript frameworks and libraries
- Front-end framework e.g. Bootstrap, Foundation, Material, etc.
- Versioning tools e.g. Git, SVN, etc.
- Accessing data from SQL databases using technologies such as Entity Framework or other ORM Frameworks
- Web Services and serialization (XML, JSON, SOAP, WCF, REST)
- Database Design/Architecture

Preference for education or experience with:
- JavaScript unit testing frameworks e.g. Protractor, Jasmine, Karma, Cypress etc.
- Database Design/Architecture
- Performance tuning and query analysis
- VSTS, TFS, Jira, etc.
- Unit testing using mock objects
- Node.js and NPM
- TDD (Test Driven Development)
- Mobile development including Xamarin
- Agile and Kanban
- Azure Dev ops

2.   Special Qualifications:

May be required to pass a criminal history background investigation.

Employees driving a personal or a County vehicle for job related travel must possess a valid driver license and must operate a motor vehicle in a safe manner; new employees with an out-of-state license must obtain a valid Utah Driver License within sixty (60) days of hire date (exceptions for military personnel and their dependents).

Employees driving a personal vehicle while on County business must maintain the minimum vehicle liability insurance as specified in Utah Code.

3.   Necessary Knowledge, Skills and Abilities:

Thorough knowledge of: relational database design, database programming including, but not limited to, stored procedures, functions, etc.; creating and updating database documentation; of C#.NET 4.5 Framework or higher; ASP.NET MVC and Web API; Web Services and serialization (XML, JSON, SOAP, WCF, REST); Visual Studio or Visual Studeo Code; AngularJS or other JavaScript frameworks and libraries; LINQ, Generics, Lambda expressions, extension methods, attributes; asynchronous request handling, partial page updates, and AJAX.

This position may require the driving of a motor vehicle; skill in operating a motor vehicle in a safe manner; ability to insure motor vehicle is operating in a safe manner; knowledge of Utah motor vehicle rules and regulations.

Skill in: keyboarding; troubleshooting and problem solving.

Ability to: design, develop, and maintain data processing applications; identify problems and recommend solutions; analyze user needs and convert requirements into computer-based procedures and systems; follow through to finish assignments in a timely and effective manner; set work priorities; plan and accomplish goals and work with minimal supervision; appropriately apply creativity and latitude toward project design; adapt and learn new skills; troubleshoot and solve problems; communicate effectively (verbally and in writing); follow written and verbal instructions; establish and maintain effective working relationships with supervisors, other employees and departments, and the general public.

The above statements are intended to describe the general nature and level of work being performed by persons assigned to this job. They are not intended to be an exhaustive list of all duties, responsibilities and skills required of personnel so classified. ***All requirement are subject to possible modification to reasonably accommodate individuals with disabilities.***

Approval Information

Date: 3/24/2021
Department Approval: Mark Langston
HR Generalist Approval: Mindy Adams
Classification Approval: Marina Brito