Iowa Department of Administrative Services – Human Resources Enterprise
Job Classification Description

Data Analyst 1

Definition

Conducts basic data analyses to identify and interpret patterns and trends; performs data collection, cleaning, and fundamental analysis of structured data to summarize finding and support business decision-making; assists in generating reports and performing descriptive analytics; operates under close supervision with clearly defined tasks and limited autonomy; performs related work as required.

> *The work examples and competencies listed below are for illustrative purposes only and not intended to be the primary basis for position classification decisions.*

Work Examples

Gathers structured data from internal databases, spreadsheets, and external sources.

Conducts descriptive analysis to summarize data using simple statistical techniques.

Creates standard reports and visualizations (e.g., charts and graphs) to present findings.

Uses basic data tools like Excel, SQL, and business intelligence software for data manipulation and reporting.

Maintains records of data sources, analysis processes, and results.

Collects and queries structured data from various sources, including databases, spreadsheets, surveys, external applications, and other data repositories.

Cleans and prepares data; identifies and resolves missing values, removes duplicates and/or outliers, and formats raw data to maintain the overall quality of data and ensure accuracy and suitability for analysis.

Stays abreast of new tools, techniques, and best practices in data analytics; actively participates in continual learning courses and training sessions to enhance skill sets.

Ensures and maintains data security and compliance with privacy regulations; handles sensitive information with care.

Competencies Required

Knowledge:

- Customer Service – Principles and processes for providing customer services, including customer needs assessment, meeting quality standards for services, and evaluating customer satisfaction.

- English Language – The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.

- Computers and Electronics – Circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.

- Mathematics – Arithmetic, algebra, geometry, calculus, statistics, and their applications.

- Clerical – Administrative and clerical procedures and systems such as word processing, managing files and records, stenography and transcription, designing forms, and other office procedures and terminology.

Abilities:

- Written Comprehension – Read and understand information and ideas presented in writing.

- Written Expression – Communicate information and ideas in writing so others will understand.

- Speech Clarity – Speak clearly so others can understand.

- Speech Recognition – Identify and understand the speech of another person.

- Deductive Reasoning – Apply general rules to specific problems to produce answers that make sense.

- Mathematical Reasoning – Choose the right mathematical methods or formulas to solve a problem.

- Information Ordering – Arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).

- Oral Comprehension – Listen to and understand information and ideas presented through spoken words and sentences.

- Oral Expression – Communicate information and ideas in speaking so others will understand.

- Flexibility of Closure – Identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material.

- Category Flexibility – Generate or use different sets of rules for combining or grouping things in different ways.

- Problem Sensitivity – Tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.

Skills:

- Critical Thinking – Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.

- Reading Comprehension – Understanding written sentences and paragraphs in work related documents.

- Active Listening – Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.

- Speaking – Talking to others to convey information effectively.

- Writing – Communicating effectively in writing as appropriate for the needs of the audience.

- Mathematics – Using mathematics to solve problems.

- Coordination – Adjusting actions in relation to others' actions.

- Time Management – Managing one's own time and the time of others.

- Active Learning – Understanding the implications of new information for both current and future problem-solving and decision-making.

Minimum Qualification Requirements

Applicants must meet at least one of the following minimum requirements to qualify for positions in this job classification:

1) Graduation from an accredited four-year college or university with a degree in business analytics, economics, data science, statistics, mathematics, management information systems, or industrial management.

2) All of the following (a and b):
   a. A total of four years of education and/or full-time experience in business/data/statistical analytics, economic research, or data science, where thirty semester hours of accredited college or university coursework in any field equals one year of full-time experience.
   b. Possession of a professional certificate in data science, business analytics, or data analytics.

3) All of the following (a and b):
   a. A total of four years of education and/or full-time experience in business/data/statistical analytics, economic research, or data science, where thirty semester hours of accredited college or university coursework in any field equals one year of full-time experience; and
   b. A total of one year of graduate-level education and/or full-time experience (as described in part a), where twenty-four semester hours of accredited graduate college or university coursework in business analytics, economics, data science, statistics, mathematics, management information systems, or industrial management equals one year of full-time experience.

Effective date: 09/24 KC