

Summary of Duties: Performs technical and administrative work in the development of standards, methods, techniques, procedures, data analyses, data designs, and database implementations necessary for the productive use, integration, sharing, integrity, standardization, security, availability, maintenance and operation of the City's automated data, and assists in the overall management of this data; develops and conducts training;

Distinguishing Features: A Data Base Architect is responsible for one or more aspects of definition, design, organization, usability, availability, performance, maintenance, and evaluation of the City's automated data. An employee of this class both performs and leads specialized administrative and technical work in the productive management of the City's automated data resource.

Example of Duties: Aids in the determination of City information requirements; conducts data analyses; constructs data models; identifies database integration opportunities and manages the integration effort; develops and documents data access requirements and strategies; designs databases; manages the integrated conceptual model of the City data resource; administers and maintains the metadata repository; assists in determining feasibility of database applications; monitors and evaluates database performance; modifies database design and/or implementation when appropriate; recommends database processing options and modifications; assists programmers in working with databases; develops and recommends standards and procedures for security, backup, recovery, and disaster recovery to assure data integrity; develops standards and procedures for, and coordinates, testing of data base applications and their migration to production; participates in hardware and software research and evaluation as it relates to database quality and performance objectives; assists users in appropriate/approved use of database management system facilities; develops and conducts training; may serve as a lead worker and assign and review the work of other technical employees; and may occasionally be assigned to other duties for training purposes or to meet technological changes or emergencies.

Qualifications: A good knowledge of data management principles and systems; a good knowledge of data-driven application development methods; a good knowledge of database design principles and data models; a good knowledge of general services and data flow practices; a good knowledge of data integrity and semantic constraint issues; a good knowledge of query and transaction processing concepts; a good knowledge of the capabilities of large, main-frame and mid-range computers; a good knowledge of prototyping concepts and methods; a good knowledge of the principles and benefits of Computer Aided Software Engineering (CASE) technology; a good knowledge of data architecture(s); a good knowledge of conceptual modeling techniques; a good knowledge of metadata requirements and metadata repository administration and usage; a good knowledge of

database management system technology including debugging utilities and control systems; a good knowledge of IBM's DB2 or relational data base concepts and/or IMS or hierarchical database concepts, including their missions and relative strengths and weaknesses; a good knowledge of backup, recovery, and disaster recovery concepts; a good knowledge of database performance issues; a good knowledge of JCL; a good knowledge of CICS and/or IMS DC; a working knowledge of TSO/ISPF/CLIST; a working knowledge of the capabilities of various software tools and utilities; a working knowledge of operating system software; a working knowledge of COBOL; a working knowledge of SQL; and a general knowledge of DB2 or relational database concepts and facilities.

Ability to work effectively with application developers, project leaders/managers, and other technical staff; ability to think creatively and reason logically in developing new approaches, methods and procedures for data resource management; and the ability to communicate business and technical information clearly persuasively and effectively, both orally and in writing, to public officials, management, professionals, knowledge workers, and technical staff.

Graduation from a recognized four year college or university with a major in Business Administration, Computer Science, Business or Management Information Systems, Mathematics or Engineering; and, four years of full-time paid journey-level information systems related computer programming experience, two years of which must have been in a class at least at the level of Programmer Analyst ~~nt systems, or,~~ ~~the analysis, modeling and logical design of data using information engineering methods for major applications on medium to large scale computer systems is required for Data Base Architect.~~

License: ~~A valid California drivers' license and a good driving record may be required.~~

~~Persons with medical limitations may, with reasonable accommodations, be capable of performing the duties of some of the positions in this class. Such determination must be made on an individual basis in light of the person's limitations, the~~

~~requirements of the position, and the appointing authority's ability to effect reasonable accommodations to the person's limitations.~~

~~As provided in Civil Service Commission Rule 2.5 and Section 4.55 of the Administrative Code, this specification is descriptive, explanatory and not restrictive. It is not intended to declare what all of the duties and responsibilities of any position shall be.~~