DIVISION Information Technology Services	EFFECTIVE DATE
BRANCH/SECTION	CLASS TITLE
Web/App Development	Information Technology Specialist I
WORKING DAYS AND WORKING HOURS	PHYSICAL WORK LOCATION
Monday through Friday 8:00 a.m. to 5:00 p.m.	Sacramento
INCUMBENT (If known)	CURRENT POSITION NUMBER (Agency - Unit - Class - Serial) 680-406-1402-XXX

YOU ARE A VALUED MEMBER OF THE DEPARTMENT'S TEAM. YOU ARE EXPECTED TO WORK COOPERATIVELY WITH TEAM MEMBERS AND OTHERS TO ENABLE THE DEPARTMENT TO PROVIDE THE HIGHEST LEVEL OF SERVICE POSSIBLE. YOUR CREATIVITY AND PRODUCTIVITY ARE ENCOURAGED. YOUR EFFORTS TO TREAT OTHERS FAIRLY, HONESTLY AND WITH RESPECT ARE IMPORTANT TO EVERYONE WHO WORKS WITH YOU.

BRIEFLY (1 or 2 sentences) DESCRIBE THE POSITION'S ORGANIZATIONAL SETTING AND MAJOR FUNCTIONS:

The Information Technology Specialist I (ITS I) works under the direction of the Web/App Development Manager. The ITS I serves as the Microsoft SQL Server Database Administrator, demonstrating an in-depth understanding and expert level knowledge in the Software Engineering and Systems Engineering domains performing a wide variety of tasks requiring regular innovative problem-solving in support of CPUC complex databases. The ITS I provides design, development, and maintenance & operations support for CPUC databases. The ITS I provides IT consultation to CPUC stakeholders to support business programs. The ITS I remains current with technologies, conducts research and analysis, makes recommendations, and develops and provides training for web related technologies. The ITS I may act as a lead over lower-level staff.

% of time performing duties	Indicate the duties and responsibilities assigned to the position and the percentage of time spent on each. Group related tasks under the same percentage with the highest percentage first. (Use additional sheet if necessary)
	ESSENTIAL FUNCTIONS:
35%	<b>Database maintenance and operations</b> Support the continued operations of existing MS SQL database systems, including required monitoring and maintenance activities to ensure database reliability in compliance with State and departmental rules and regulations, policies, procedures, guidelines, and standards. Resolve and respond to client incidents or requests. Troubleshoot, track, and conduct root cause analysis of system / program / database / operational issues utilizing standard procedures (monitors, logs, user input, debugging processes, etc.), until resolved or escalated to restore normal operations. Coordinate system/database installation, operations, maintenance, repairs, and/or upgrades. Monitor Mission Critical and/or large complex IT systems and databases using modelers, profilers, scripts, log outputs, and automated testing tools to ensure integrity and tune the system to meet performance requirements. Ensure the availability of adequate database environment resources by using tools to monitor file growth and resource utilization. Prevent environment problems by running database software utilities to reformat, extend and reorganize tables and indexes when needed; execute established restart and recovery procedures as required. Ensure compliance with database security policies by implementing approved security roles and requirements; report security violations to management. Optimize application level database queries as required to improve performance or maintain data integrity. Provide metrics on services to support service level agreements.

## **30% Database administration and support**

Manage data and database security configurations and settings. Implement data models by converting logical database designs into physical database designs. Design and implement database views. Document updates to database design following established enterprise data modeling procedures. Verify the creation of indexes by validating against database design and performance baselines. Develop queries to audit/validate database contents and perform other database level tasks. Ensure adequate space by implementing space allocation estimates for database tables. Evaluate the impact of requested database modifications on space, performance and other criteria as appropriate. Develop test cases and test data to verify defined functional and non-functional requirements. Test software systems using test cases and test data to meet defined

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functional and non-functional requirements. Manage data functions including define, extract, transform, load, sync, and archive data. 15% Support database vendor software Document and update design specifications, installation instructions, and other system-related information. Develop, update, document and implement standards, procedures, processes, and controls to ensure proper installation, configuration, maintenance/operations, security, reliability, and availability of systems/databases. Develop and execute test plans for system/database upgrades or releases. Schedule and test new releases of software for enterprise use. Develop and maintain procedures and schedules for database maintenance, backup and recovery to protect information assets. Collaborate with backup and recovery support teams and vendor as needed to ensure database backup and reliability. Evaluate new releases of software to determine impact to existing database and/or application functionality. Solicit third party vendors for assistance in resolving software problems. Serve as database technical specialist to the enterprise 15% Conduct research and analysis of new and evolving technologies and industry best practices. Recommend system upgrades, cost-effective solutions, and process improvements to meet current and future needs. Analyze business impact and exposure, based on emerging security threats, vulnerabilities and risks to recommend IT solutions. Develop and maintain guidelines, standards, and best practices for database product usage in the enterprise. Review database design specification for new applications or projects. Review data sharing agreements prior to release of confidential information. Review current literature, white papers, and technical documentation. Develop, maintain, and conduct end user training related to data best practices and Database technologies. Formulate, deliver, and coordinate education and communication to optimize the use of applied technologies using various instructional aids and communication media. **MARGINAL FUNCTIONS:** Perform other job-related duties as assigned. Attend meetings, workshops, tutorials, labs, and training classes as needed. 5% **KNOWLEDGE AND ABILITIES** [From Class Specs] Knowledge of: Information technology concepts, practices, and principles to provide a foundation for technology related work. Principles, techniques, and procedures related to the delivery of information technology services; the System Development Lifecycle including the associated methodologies, tools, and processes; the organization's business processes and procedures; education tools and techniques; performance monitoring tools and techniques; and data administration techniques and best practices. Information technology governance principles and guidelines to support decision making: complex and mission critical business processes and systems; principles, methods and procedures for designing, developing, optimizing, and integrating systems in accordance with best practices; system specifications design, documentation, and implementation methodologies and techniques. Ability to: Perform research and data gathering; analyze information and evaluate results to choose the best solution and solve problems; communicate effectively verbally and in writing as appropriate for the needs of the audience; utilize reporting tools to develop and analyze statistical reports; interpret and explain technical information to non-technical individuals; interpret customer requests to meet service needs and resolve problems; provide customer service; work cooperatively with staff at all levels; proficiently use computers and productivity software; and understand and align technology proposals with business needs. Use initiative: act independently with flexibility and tact; use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems; perform technical analysis of proposed technology solutions; comprehend technical documents to interpret specifications, system implementations, capabilities, interdependencies, and compatibilities; serve as a technical liaison; develop and effectively utilize all available resources; develop end-user training materials; and gather data to perform statistical analysis and report outcomes.

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<ul> <li>Formulate and recommend policies and procedures; perform effectively in a fast-paced environment with constantly changing priorities; establish and maintain project priorities; apply federal, state, department, and organizational policies and procedures to state information technology operations; apply systems life cycle management concepts used to plan, develop, implement, operate, and maintain information systems; positively influence others to achieve results that are in the best interests of the organization; consider the business implications of the technology to the current and future business environment; communicate change impacts and change activities through various methods; conduct end-user training; collaborate closely with technical subject matter experts such as database administrators, network engineers, and server administrators to ensure systems are secure and meet compliance requirements; assess situation to determine the importance, urgency, and risks to the project and the organization; make decisions which are timely and in the best interests of the organization; provide quality and timely ad hoc project information to executives, project team members, and stakeholders; develop decision making documents; and assess and understand complex business processes and customer requirements to ensure new technologies, architectures, and security products will meet their needs</li> <li>WORK ENVIRONMENT, PHYSICAL OR MENTAL ABILITIES:</li> <li>Work in a climate-controlled office under artificial lighting. There will be occasional fluctuations in temperature. Sit at a desk during core office hours. Use a computer, keyboard, mouse, monitor, and printers for prolonged periods of time. Bend and stoop to retrieve and replace files and records weighing up to 20 pounds. Move about the office and stand or sit during in person meetings.</li> <li>Proficiently use standard office technologies, including computer applications, phone equipment, Internet, voicemail, email, etc.</li> <li></li></ul>						
		DATE				
SUPERVISOR'S NAME (Print)	SUPERVISOR'S SIGNATURE	DATE				
EMPLOYEE'S STATEMENT: I HAVE DISCUSSED WITH MY SUPERVISOR THE DUTIES OF THE POSITION AND HAVE RECEIVED A COPY OF THE DUTY STATEMENT						

The statements contained in this duty statement reflect general details as necessary to describe the principal functions of this job. It should not be considered an all-inclusive listing of work requirements. Individuals may perform other duties as assigned, including work in other functional areas to cover absence of relief, to equalize peak work periods or otherwise balance the workload.

EMPLOYEE'S NAME (Print)	EMPLOYEE'S SIGNATURE	DATE	