

MANAGER OF SOFTWARE ARCHITECTURE

DISTINGUISHING FEATURES OF THE CLASS: Under general supervision, incumbents of this class, located in the Departments of Information Technology, Westchester Community College or at Westchester Medical Center, are responsible for managing and supervising the design, development, building, configuration, integration, testing and operation of custom programming projects and systems, including in-house and third party software components, as well as off-the-shelf software modules, in order to provide quality IT services to user departments. Incumbents are expected to provide managerial and technical leadership to departmental staff, to manage vendor relationships, and to work with administrative and executive staff in county departments to address their information technology needs. Does related work as required.

EXAMPLES OF WORK: (Illustrative Only)

Prepares project plans, then manages, coordinates and schedules staff to ensure that all tasks are completed in a successful and timely manner, at any point in the life-cycle of an application system, to build effective applications systems in county departments;

Supervises the collection and organization of functional requirements; analyzes those requirements and development of a conceptual (logical) representation of the requirements;

Directs the preparation of work-flow analysis and process re-engineering;

Trains staff, prepares staff evaluations, and schedules leaves in conjunction with project timetables;

Ensures the reliable and efficient operation of applications systems used by County departments, including review of performance statistics;

Prepares RFP's for vendor software, software tools and components and manages vendor relationships to ensure the delivery of required products and services in a timely and accurate fashion;

Develops and prepares procedures and processes, documentation, specifications, standards, and instructions as needed;

Designs the architecture for and supervises the development of Web-based applications, using one or more of HTML, Java, .Net, SQL, PL/SQL, or PHP , or other tool appropriate to the application;

Assists with the preparation of departmental budget as relates to application systems;

Uses and administers systems configuration management and version control tools in the various life-cycle stages of a system;

Directs walk-throughs of designs and application code;

EXAMPLES OF WORK: (Illustrative Only) (Cont'd)

Designs, develops and administers systems based upon relational database management software such as Oracle and Microsoft SQL Server;

Coordinates the implementation of custom software application projects county-wide, serving as an advisor and providing technical leadership to software architecture teams in order to ensure consistency, quality and standardization of departmental rules, processes and procedures for developing enterprise level software applications;

Uses computer applications or other automated systems such as spreadsheets, word processing, email, calendar and database software in performing work assignments;

May access protected health information (PH) in accordance with departmental assignments and guidelines defining levels of access (i.e. incidental vs. extensive);

May perform other duties as required.

FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND ATTRIBUTES:

Thorough knowledge of the concepts of current server and client operating systems, including UNIX, Microsoft Windows; thorough knowledge of designing and programming software; thorough knowledge in two or more of the following languages: HTML, Java, .Net, SQL, PL/SQL, or PHP ; thorough knowledge of formal requirements, analysis and design methodologies and CASE tools, such as Yourdon-DeMarco or UMT; thorough knowledge of the design and programming of effective, maintainable solutions - at the module level - and its architecture; thorough knowledge concerning how to use and select software components/objects as appropriate; thorough knowledge of relational database design, operation, optimization and tuning; good knowledge of object-oriented programming and database management systems, distributed computing and 3-tier architectures as well as middleware and other systems integration tools, and embedded systems; knowledge of GIS and expert systems; skill in the use of Rapid Application Development tools; ability to train staff in the use of various application tools; ability to plan, coordinate, supervise and evaluate the work of others including subordinate supervisors and team leaders; ability to identify, evaluate and convey (both orally and in writing) requirements, designs and operations of application software and systems; ability to establish and maintain effective working relationships; ability to read, write, speak, understand, and communicate in English sufficiently to perform the essential functions of the position; ability to manage technical projects and vendor relationships; ability to gather and analyze data and draw conclusions; ability to establish and maintain effective working relationships; thoroughness and attention to detail; ability to use computer applications such as spreadsheets, word processing, calendar, email and database software; ability to read, write, understand and communicate in English sufficiently to perform the essential functions of the position; resourcefulness; initiative; imagination; good judgment; physical condition commensurate with the demands of the position.

MINIMUM ACCEPTABLE TRAINING AND EXPERIENCE: A Bachelor's Degree* and five (5) years of recent (within the last 7 years) experience (pre- or post-degree) where a primary function of the position was designing and programming application software in Java, .Net, SQL, PL/SQL, or PHP; the administration of Oracle or MS SQL server databases; or full life-cycle project management of information technology focused projects; two (2) years of which must have been in a supervisory or team leader capacity;.

SUBSTITUTIONS: A Bachelor's degree* in Information Technology or closely related field may be substituted for one year of the required experience. A Master's Degree* in Information Technology or a closely related field may also be substituted for one additional year of experience. There is no substitution for the supervisory or team leader experience.

SPECIAL REQUIREMENTS: Possession of a valid license to operate a motor vehicle in the State of New York at time of appointment and maintain same while in the title.

NOTES:

1. *Education beyond the secondary level must be from an institution recognized or accredited by the Board of Regents of the New York State Department of Education as a post-secondary, degree-granting institution.
2. Unless otherwise noted, only experience gained after attaining the minimum education level indicated in the minimum qualifications will be considered in evaluating experience.
3. Experience on a home personal computer may not be used as a substitute for the aforementioned experience.