



ERIC L. ADAMS
Mayor

DEPARTMENT OF CITYWIDE ADMINISTRATIVE SERVICES
BUREAU OF EXAMINATIONS

LOUIS A. MOLINA
Commissioner

NOTICE OF EXAMINATION

COMPUTER SPECIALIST (SOFTWARE) Exam No. 5056

WHEN TO APPLY: From: January 8, 2025

To: January 28, 2025

APPLICATION FEE: \$96.00

If you choose to pay the application fee with a credit/debit/gift card, you will be charged a service fee of 2.00% of the payment amount. This service fee is nonrefundable.

CANDIDATES WHO DEMONSTRATE THAT THEY ARE A VETERAN, UNEMPLOYED, RECEIVING PUBLIC ASSISTANCE, OR SUPPLEMENTARY SECURITY INCOME, ARE ENTITLED TO A WAIVER OF THE APPLICATION FEE.

YOU ARE RESPONSIBLE FOR READING THIS ENTIRE NOTICE BEFORE YOU SUBMIT YOUR APPLICATION.

WHAT THE JOB INVOLVES:

Computer Specialists (Software) under supervision, with considerable latitude for independent action or the exercise of independent judgment, are responsible for the analysis, design, development, implementation, enhancement, maintenance and security of database management systems, operating systems, data communications systems, applications, mobile applications, websites, and/or related software functions. Computer Specialists (Software) may also have specialized responsibilities, including but not limited to managing Supervisory Control and Data Acquisition (SCADA) systems and large-scale database projects and responding with on-call, emergency support for critical systems. Computer Specialists (Software) may supervise a unit engaged in work related to these areas or may independently perform related work of a highly complex, technical nature. All Computer Specialists (Software) perform related work.

Special Working Conditions:

Computer Specialists (Software) may be required to work various shifts including nights, Saturdays, Sundays, and holidays.

(This is a brief description of what you might do in this position and does not include all the duties of this position.)

THE SALARY:

The current minimum salary is \$92,236 per annum. This rate is subject to change. There are four assignment levels within this class of positions. Appointments will generally be made to Assignment Level I. After appointment, employees may be assigned to the higher assignment levels at the discretion of the agency.

HOW TO QUALIFY:

You are responsible for determining whether or not you meet the education and experience requirements for this examination prior to submitting your application. If you are found "Not Qualified," your application fee will not be refunded and you will not receive a score.

As per section 54(2) of the Civil Service Law, the education requirement needed to qualify must be met by January 28, 2026. The experience requirement needed to qualify must be met by the last day of the Application Period (January 28, 2025).

EDUCATION AND EXPERIENCE REQUIREMENTS:

1. A baccalaureate degree from an accredited college or university, including or supplemented by 24 semester credits in computer science or a related computer field **and** two years of satisfactory, full-time computer software experience in computer systems development and analysis, applications programming, database administration, maintenance and support, systems programming, data communications, mainframe development, mobile development and/or web development and design, **one year of which must have been in a project leader capacity or as a major contributor on a complex project in one or more of the acceptable areas; or**

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2. A four-year high school diploma or its educational equivalent **and** six years of satisfactory, full-time computer software experience as described in "1" above, **one year of which must have been in a project leader capacity or as a major contributor on a complex project in one or more of the acceptable areas; or**
3. Education and/or experience equivalent to "1" or "2" above. College education may be substituted for up to two years of the required experience in "2" above on the basis that 60 semester credits from an accredited college or university is equated to one year of experience. A master's degree from an accredited college or university in computer science or a related computer field, or a certificate of at least 625 hours in computer programming from an accredited technical school (post high school), may be substituted for one year of the required experience in "1" or "2" above. However, all candidates must have at least a four-year high school diploma or its educational equivalent **and at least one year of satisfactory full-time experience in a project leader capacity or as a major contributor on a complex project in one or more of the acceptable areas.**

Note: Some examples of unacceptable experience are:

- a. end users of: a computer system, program or software package; productivity software products (e.g., word processing, spreadsheet, presentation, and database software, etc.); preprogrammed software without complex programming, design and implementation.
- b. experience in the areas of: computer technical support, computer operations, data entry/data retrieval, hardware installation, call center, teaching and/or telecommunications.

In order to have your experience as a Project Leader or Major Contributor on a complex project accepted, you must have dedicated at least 50% of your time performing duties involving computer software in computer systems development and analysis, applications programming, database administration, maintenance and support, systems programming, data communications, mainframe development, mobile development and/or web development and design.

The high school diploma or its educational equivalent must be approved by a State's Department of Education or a recognized accrediting organization. The technical school (post high school) must be approved by a State's Department of Education or a recognized accrediting organization. The college or university must be accredited by regional, national, professional, or specialized agencies recognized as accrediting bodies by the U.S. Secretary of Education and by the Council for Higher Education Accreditation (CHEA).

If you were educated outside the United States, you must have your foreign education evaluated to determine its equivalence to education obtained in the United States. This is required **only** if you need credit for your foreign education in this examination. For more information see the Foreign Education Evaluation Guide in the Required Information section.

During the Education and Experience Exam (EEE), you may answer questions about your experience. If your experience was on a part-time basis working less than 35 hours per week, you will need to convert your part-time experience to full-time experience using the formula below. Once you have determined your full-time experience equivalent, use this amount to answer questions about your experience.

$(\text{number of hours worked per week}/35) \times (\text{number of months worked})$

For example, if you worked at a job for 21 hours per week for 12 months, you would make the following calculation: $21/35 \times 12 = 7.2$ months.

You have until midnight Eastern time on the last day of the Application Period (January 28, 2025) to clearly specify in detail all of your relevant education and experience and Final Submit your Education and Experience Exam in the Online Application System (OASys). Once you Final Submit your Education and Experience Exam in OASys, you will not be permitted to submit new or additional information on your Education and Experience Exam online.

If you do not Final Submit your Education and Experience Exam in OASys by midnight Eastern time on the last day of the Application Period (January 28, 2025), your examination will be considered incomplete, you will not receive a score, you will not be invited to subsequent portions of this examination (if applicable), and your application fee will not be refunded.

Residency Requirement Advisory:

City residency is not required for this position.

English Requirement:

You must be able to understand and be understood in English.

Proof of Identity:

Under the Immigration Reform and Control Act of 1986, you must be able to prove your identity and your right to obtain employment in the United States prior to employment with an agency under the jurisdiction of the Commissioner, Department of Citywide Administrative Services.

HOW TO APPLY:

If you believe you meet the requirements in the "How to Qualify" section, apply using the Online Application System (OASys) at www.nyc.gov/examsforjobs. Follow the onscreen application instructions for electronically submitting your application, payment, and completing any required information. A unique and valid email address is required to apply online. Several internet service providers, including but not limited to Google, Yahoo!, AOL, Outlook.com, and Mail.com offer free email addresses. **All new OASys accounts require verification before a candidate can apply to ensure the accuracy of candidate information. Verification is instantaneous for most accounts and you will receive a confirmation email with instructions to activate your account. For any account creation issues, you will receive onscreen prompts to contact DCAS. This review may require up to two (2) business days to be reviewed and resolved. Please keep this information and the application period deadline in mind when creating your account.**

The following methods of payment are acceptable: major credit card, bank card associated with a bank account, or a prepaid debit card with a credit card logo which you may purchase online or at various retail outlets. If you are receiving or participating in certain forms of public assistance/benefits/programs, or are a veteran, you may qualify to have the application fee waived. For more information on eligibility for a fee waiver and documentation requirements visit the Fee Waiver FAQ on the Online Application System at:

<https://a856-exams.nyc.gov/OASysWeb/faqs>. **Effective January 2020, the Online Application System is no longer supported on Windows 7 or earlier versions of Windows operating systems.**

You may come to the DCAS Computer-based Testing & Application Centers to apply for this examination online.

The centers will be open Monday through Friday from 9:00 AM to 5:00 PM:

Manhattan

2 Lafayette Street
17th Floor
New York, NY 10007

Brooklyn

210 Joralemon Street
4th Floor
Brooklyn, NY 11201

Queens

118-35 Queens Boulevard
5th Floor
Forest Hills, NY 11375

Staten Island

135 Canal Street
3rd Floor
Staten Island, NY 10304

Bronx

1932 Arthur Avenue
2nd Floor
Bronx, NY 10457

The DCAS Computer-based Testing & Application Centers will be closed on Monday, January 20, 2025.

You must complete the entire application by midnight, Eastern Time, of the last day of the application period. If you have questions about applying for this examination, you may contact DCAS at OASys@dcas.nyc.gov.

Special Circumstances Guide: This guide is located on the DCAS website at https://www1.nyc.gov/assets/dcas/downloads/pdf/employment/pdf_c_special_circumstances_guide.pdf and available at the DCAS Computer-based Testing & Application Centers. This guide gives important information about claiming Veterans' or Legacy credit, and notifying DCAS of a change in your mailing address. Follow all instructions on the Special Circumstances Guide that pertain to you when you complete your "Application for Examination."

REQUIRED INFORMATION:

1. **Application for Examination:** Follow the online instructions, including those relating to the payment of fee and, if applicable, those found in the Special Circumstances Guide.
2. **Education and Experience Exam:** Fill out all the required sections displayed onscreen (if applicable). You will have until midnight Eastern time on the last day of the Application Period (January 28, 2025) to clearly specify in detail all of your relevant education and experience on your Education and Experience Exam and submit it in the Online Application System (OASys).

If you do not Final Submit your Education and Experience Exam in OASys by midnight Eastern time on the last day of the Application Period (January 28, 2025), your examination will be considered incomplete, you will not receive a score, you will not be invited to subsequent portions of this examination (if applicable), and your application fee will not be refunded.

3. **Foreign Education Evaluation Guide (Required only if you need credit for your foreign education in this examination):** If you were educated outside the United States, you must have your foreign education evaluated to determine its equivalence to education obtained in the United States. The services that are approved to make this evaluation are listed on the Foreign Education Evaluation Guide which is located on the DCAS website at <https://www1.nyc.gov/assets/dcas/downloads/pdf/employment/foreigneducation.pdf>. When you contact the evaluation service, ask for the evaluation as follows:

(A) If you wish to claim a diploma/degree only and do not wish to claim any semester credits in the subject area(s) described in the How to Qualify section above, ask for a **"document-by-document"** evaluation of your foreign education.

(B) If you wish to claim a diploma/degree and/or semester credits in the subject area(s) described in the How to Qualify section above, ask for a **"course-by-course"** evaluation (which includes a "document-by-document" evaluation) of your foreign education.

(C) If you wish to claim a certificate of at least 625 hours in computer programming described in the How to Qualify section above, then ask the Evaluation Service to recommend the appropriate type of evaluation and ensure that the evaluation states the number of hours completed.

You must have one of these services submit its evaluation of your foreign education directly to the Department of Citywide Administrative Services no later than eight weeks from the last day of the Application Period (January 28, 2025).

THE TEST:

Your score will be determined by an Education and Experience Exam. You will receive a score of 70 points for meeting the education and experience requirements listed above. After these requirements are met, you will receive additional credit up to a maximum of 100 points on the following basis:

If you have satisfactory full-time experience performing complex coding on multi-layered projects for:

You will receive up to:

At least 6 months but less than 12 months

2.5 points

At least 12 months but less than 18 months	5 points
At least 18 months but less than 24 months	7.5 points
At least 24 months but less than 30 months	10 points
At least 30 months but less than 36 months	12.5 points
At least 36 months but less than 42 months	15 points
At least 42 months but less than 48 months	17.5 points
At least 48 months but less than 54 months	20 points
At least 54 months but less than 60 months	22.5 points
At least 60 months but less than 66 months	25 points
At least 66 months but less than 72 months	27.5 points
72 or more months	30 points

If you have satisfactory full-time experience managing complex technical projects through all stages of the project lifecycle, which involves collaborating with others, managing a team, reporting, as well as both written and verbal communication with technical and non-technical audiences, for:

You will receive up to:

At least 12 months but less than 24 months	13 points
At least 24 months but less than 36 months	17 points
36 or more months	21 points

If you have satisfactory full-time experience performing analysis, testing, risk mitigation, application management, system management, and/or cybersecurity, which may include but is not limited to working with algorithms and data structures and working in multiple environments (e.g., DEV, UAT, PROD), for:

You will receive up to:

At least 6 months but less than 12 months	1 point
At least 12 months but less than 18 months	2 points
At least 18 months but less than 24 months	3 points
At least 24 months but less than 30 months	4 points
At least 30 months but less than 36 months	5 points
At least 36 months but less than 42 months	6 points
At least 42 months but less than 48 months	7 points
At least 48 months but less than 54 months	8 points
At least 54 months but less than 60 months	9 points
At least 60 months but less than 66 months	10 points
At least 66 months but less than 72 months	11 points
At least 72 months but less than 78 months	12 points

At least 78 months but less than 84 months	13 points
At least 84 months but less than 90 months	14 points
At least 90 months but less than 96 months	15 points
At least 96 months but less than 102 months	16 points
At least 102 months but less than 108 months	17 points
At least 108 months but less than 114 months	18 points
At least 114 months but less than 120 months	19 points
120 or more months	20 points

During the Education and Experience Exam (EEE), you may answer questions about your experience. If your experience was on a part-time basis working less than 35 hours per week, you will need to convert your part-time experience to full-time experience using the formula below. Once you have determined your full-time experience equivalent, use this amount to answer questions about your experience.

$(\text{number of hours worked per week}/35) \times (\text{number of months worked})$

For example, if you worked at a job for 21 hours per week for 12 months, you would make the following calculation: $21/35 \times 12 = 7.2$ months.

Experience used to meet the minimum requirements cannot be used to gain additional credit.

You have until midnight Eastern time on the last day of the Application Period (January 28, 2025) to clearly specify in detail all of your relevant education and experience and Final Submit your Education and Experience Exam in the Online Application System (OASys). Once you Final Submit your Education and Experience Exam in OASys, you will not be permitted to submit new or additional information online.

If you do not Final Submit your Education and Experience Exam in OASys by midnight Eastern time on the last day of the Application Period (January 28, 2025), your examination will be considered incomplete, you will not receive a score, you will not be invited to subsequent portions of this examination (if applicable), and your application fee will not be refunded.

You will not receive additional credit for experience which you obtain after January 28, 2025.

CHANGE OF MAILING ADDRESS, EMAIL ADDRESS, AND/OR TELEPHONE NUMBER:

It is critical that you promptly notify DCAS of any change to your mailing address, email address and/or phone number. If we do not have your correct mailing address, email address and/or phone number, you will not receive information about your exam(s), consideration for appointment and/or important information that may require a response by a specified deadline. If you need to update your Mailing Address, Email Address, and/or Telephone Number, read below:

- City Employees - update this information in NYCAPS Employee Self-Service (ESS) at www.nyc.gov/ess
- All Others - update this information on your Profile page in the Online Application System (OASys) by logging into your OASys account and navigating to your Dashboard, then your Profile tab at www.nyc.gov/examsforjobs
- Submit a written request by email at OASys@dcas.nyc.gov, by fax (646) 500-7190, or by regular mail: DCAS, 1 Centre Street, 14th Floor, New York, NY 10007. Your written request must include your full name, social security number, exam title(s), exam number(s), previous mailing and/or email address, and your new mailing and/or email address, and/or new telephone number.

CHANGE OF NAME AND/OR SOCIAL SECURITY NUMBER:

Use the Data Correction Form and follow all instructions for changing your name and/or social security number with DCAS. The following link will provide you with the DCAS Data Correction Form: <https://www1.nyc.gov/assets/dcas/downloads/pdf/employment/dp148a.pdf>.

THE TEST RESULTS:

If you pass the Education and Experience Exam, your name will be placed in final score order on eligible list, you will be given a list number, and you will be notified by email of your test results. The eligible list determines the order by which candidates will be considered for appointment. If you meet all requirements and conditions, you will be considered for appointment if your name is reached on the eligible list. Once a list has been established, it will typically remain active for four years. To learn more about the civil service system go to: <https://www1.nyc.gov/site/dcas/employment/civil-service-system.page>.

If you believe that your test part was rated incorrectly, you may submit an appeal of your score to DCAS, Committee on Manifest Errors, through the Online Application System (OASys). Your appeal must give specific reasons why your score should be higher. Your appeal may result in a higher or lower rating.

To access the appeal portal of OASys, please log into your OASys account at www.nyc.gov/examsforjobs and use the following steps:

1. Navigate to the Dashboard for the Appeals tab.
2. Click the NEW APPEAL button to create and submit your appeal.

3. Select the exam from the Exam drop-down list, and
4. Select the exam part from the Exam Part drop-down list.
5. Select the reason for your appeal from the Appeal Reason drop-down list (if applicable).
6. Enter the details of your appeal by providing specific reasons why your score should be higher.

ADDITIONAL INFORMATION:

Selective Certification for Certification and/or Special Experience: If you have the certification and/or experience listed in one or more of the areas listed below, you may be considered for appointment to positions requiring a certification and/or experience through a process called Selective Certification. If you qualify for Selective Certification, you may be given preferred consideration for positions requiring this certification and/or experience. If you wish to apply for this Selective Certification, follow the onscreen instructions when completing the Education and Experience Exam to indicate your interest in such Selective Certification and Final Submit it in the Online Application System (OASys). Your certification(s) and/or experience will be checked by your agency at the time of appointment.

1. **Agile Scrum Master Experience (ASM):** At least two (2) years of satisfactory, full-time scrum master experience as a servant leader for agile teams implementing packaged or custom-built applications, systems, major system components, or integrations between multiple applications or system components; and at least two (2) years of satisfactory, full-time experience implementing Scrum to lead teams using the Agile Scrum software development methodology by conducting daily scrum meetings as the scrum master with complex delivery teams; and at least two (2) years of satisfactory, full-time experience with Application Lifecycle Management (ALM) tools (e.g., Azure DevOps, Jira, and/or Microfocus ALM/Quality Center).
2. **Application Development (APD):** At least two (2) years of satisfactory, full-time experience in the design, development, implementation, maintenance or enhancement of web, mobile, custom, geospatial and/or mapping applications. Examples include, but are not limited to: HTML5, Java, Spring, .Net, Oracle, SQL server, MQ, Web Services, ETL, ESRI, Oracle Spatial, PostGIS, Open Geo Suite, Google, Mapbox, CartoDB, Java, JavaScript and Python.
3. **Artificial Intelligence / Machine Learning (AI/ML) Engineer Experience (AIL):** At least two (2) years of satisfactory, full-time experience in design, development, implementation, maintenance and enhancement of machine learning systems. The experience should include, but is not limited to: Large Language Models, Deep Learning, Python, JavaScript, OpenAI, OpenAI API, ChatGPT, Google Bard and AWS Bedrock.
4. **Azure Data Engineering (43T):** A valid Azure Data Engineer certification and at least two (2) years of satisfactory, full-time experience in professional development (including work with Microsoft Azure). Experience must include a combination of implementing data storage solutions, managing and developing data processing, monitoring and optimizing data solutions. Experience must also include designing Azure; data storage solutions, processing solutions, and data security and compliance solutions.
5. **Backup Administration (119):** A valid industrial certified Backup and Recovery Specialist and/or at least two (2) years of full-time satisfactory experience as an administrator of a large-scale backup software product such as NetBackup, Commvault, Veeam, Cohesity, Rubrik, Data Protection Suite, Networker, TSM, Simpana, Data Protector or Avamar, or two (2) years as a backup administrator with the remaining time spent administering either SAN storage, a virtualization hypervisor platform, or both.
6. **Business Analysis (BNA):** At least two (2) years of satisfactory, full-time experience employing User-Centered Analysis techniques (interviews, direct observations, requirement work sessions, etc.) in a variety of software development life cycle (SDLC) methodologies, including Agile methodologies (e.g., Scrum, Kanban, Scrumban, etc.), with experience including eliciting business needs and defining requirements packages for IT applications.
7. **CompTia A+ (A+C):** A valid CompTIA A+ certification and at least two (2) year of satisfactory, full-time experience in, but not limited to, defining, building, deploying, or maintaining software solutions applications/systems.
8. **CRM Systems Administration (233):** At least five (5) years of satisfactory, full-time experience in administering, designing, developing, implementing, maintaining and/or enhancing industry leading CRM Systems and its related platforms. Examples include, but are not limited to: Oracle Siebel, Microsoft Dynamics, Oracle CRM, Salesforce, Actuate and/or BI Publisher, Visual Studio, IIS, SQL Server, SSRS, XML/XSL/Web Services with strong knowledge of Unix, Linux and SQL or related technology.
9. **CyberSecurity (221):** A minimum of two (2) years of satisfactory, full-time professional experience in the field of Cybersecurity technology. This experience should demonstrate proficiency in implementing and maintaining cybersecurity protocols, conducting risk assessments, and managing security incidents. Candidates should possess a comprehensive understanding of cybersecurity principles, practices, and technologies, and have a proven track record of effectively safeguarding information systems and networks.
10. **Data Analytics Experience and/or Related Areas (DAE):** At least two (2) years of satisfactory, full-time experience structuring, organizing, and analyzing data; importing, cleaning, transforming, validating and/or modeling data with the purpose of drawing conclusions from the data for decision-making purposes; designing and presenting conclusions gained from analyzing data using statistical tools such as Microsoft Excel, Access and report writing using Crystal Reports, SQL Server Reporting Services, Microsoft Access Reports, etc.
11. **Data Engineering (DEN):** At least two (2) years of satisfactory, full-time experience in the design, development, implementation, maintenance and enhancement of application and data pipeline integrations using cloud, database, programming and ETL/ELT technologies. Examples include, but are not limited to OBIEE, Oracle Analytics Cloud (OAC), Looker, Power BI, Informatica PowerCenter, Informatica Intelligent Cloud Services, SSIS, SQL Server, AWS Redshift, AWS Glue, AWS S3, AWS Lambda, Azure Synapse, Azure Data Factory, Azure Logic Apps, Azure Databricks, Azure Storage Accounts, Azure DevOps, Kafka, Spark, Powershell, Bash scripting, Python, Snowflake, Oracle, Postgres, MongoDB and API integrations.
12. **Data Science (DAC):** At least two (2) years of satisfactory, full-time experience in cleaning, analyzing, modeling, predicting, and visualization of data from a variety of sources (SQL and No-SQL databases, files, geospatial formats, open data) using methods such as machine learning, deep learning, reinforcement learning, supervised and unsupervised learning, time-series analysis, genetic algorithms, and/or clustering and dimensionality reduction.

13. **DevOps Engineer (22E):** At least two (2) years of satisfactory, full-time experience in design, development, implementation, maintenance and enhancement of CI/CD pipelines. The experience should include, but is not limited to: Azure DevOps, Git, GitHub.com, YAML, Jenkins, Java/.NET/Python/JS, Terraform.
14. **Front End Development with Experience (FED):** At least two (2) years of satisfactory, full-time experience in HTML, HTML5, CSS, CSS3, Javascript, ARIA, Enterprise Content Management Systems, Photo/Graphics Editing Software, and knowledge of Accessibility standards (WCAG level A and AA). Examples include, but are not limited to, AngularJS, React, AJAX, XML, JSON and/or responsive web development.
15. **Functional Testing with Full Time Experience (HBN):** At least two (2) years of satisfactory, full-time experience in at least one of the following areas: 1) Performing functional testing tasks for applications with browser-based user interfaces and web services (API), ETL, or designed for mobile devices, including but not limited to analyzing business requirements for completeness and testability; designing requirements-based test cases; executing test cases; and registering, reporting and tracking defects using Application Lifecycle Management (ALM) tools (e.g. Azure DevOps, Jira, or ALM/Quality Center) as well as the test management system; handling test data and test results in various locations or formats like files systems, relational databases (using SQL), flat files, JSON, XML, CSV, Excel files 2) Automating functional test cases for applications with browser-based user interfaces, API-based applications (e.g. SOAP or REST API), or applications designed for mobile devices, using open source test automation tools (e.g., Selenium IDE, Selenium WebDriver, Playwright) in Java, JavaScript, or Python and/or using mobile-based automation tools such as Appium, Android Studio, or Xcode, following test automation methods like recording/parametrization/play back, descriptive programming, or manual coding 3) Conducting performance testing activities such as analyzing application functionality and architecture; script creation; execution, analysis, and reporting of results; troubleshooting application performance issues; and deep diagnostics using LoadRunner and/or Performance Center for applications with a browser-based user interface or API.
16. **Geographic Information Systems (GIS):** At least five (5) years of satisfactory, full-time experience using Geographical Information Systems (GIS) in at least one (1) of the following capacities: maintenance of geospatial data, spatial analysis, map production, and/or supporting an organization's operations; must have experience supervising GIS resources and managing or overseeing GIS tasks and/or GIS projects.
17. **Informatica Intelligent Cloud Service (IIC):** At least two (2) years of satisfactory, full-time experience with Informatica Intelligent Cloud Service (IICS) processes with CAI, CDI, Mass Ingestion and Informatica Secure Agents.
18. **IT Program Management (42E):** At least five (5) years of satisfactory, full-time IT project and/or program management experience implementing packaged or custom-built applications, systems, major system components or integrations between multiple applications or system components; provisioning of physical, virtual or cloud-based hosting; implementing Scrum to manage projects using the Agile software development methodology by conducting daily Scrum meetings as the Scrum master with multi-disciplinary teams (e.g., Business Analysts, and/or Developers, and/or Server Engineers, and/or Network Engineers, and/or Security Engineers, and/or Quality Assurance Testers, and/or Support Engineers) and managing programs consisting of multiple, related, IT projects including direct management of project manager employees and/or consultants; utilizing technologies such as, but not limited to HTML5, Java, Spring, .Net, Oracle, SQL server, MQ, Web Services, ETL, and specific product stacks such as Oracle WebLogic, JBOSS, Azure, AWS Elastic Beanstalk, Docker, OBIEE, Informatica, Socrata, Documentum, Law Manager, MS Dynamics CRM, MS SharePoint, and mobile technologies such as iOS and Android development. Must have experience with project management, project portfolio management and IT Service Management tools, including, but not limited to MS Project, CA Clarity, and BMC Remedy.
19. **M.204 Mainframe Developer (MDL):** At least two (2) years of satisfactory, full-time experience in the analysis, design, implementation, maintenance, and enhancement of Model 204 (M204) Mainframe environment. Experience must include working with M204 backup and recovery, installation of M204 software and Early Warnings.
20. **Microsoft 365 Certified: Endpoint Administrator Associate (EAA):** Microsoft 365 Certified: Endpoint Administrator Associate
21. **Microsoft Office 365 Administrator Expert (463):** A valid Microsoft Office 365 Administrator Certification and two (2) years of satisfactory, full-time experience in evaluating, planning, migrating, deploying, and managing Microsoft 365 services such as email, SharePoint, MS Teams, OneDrive, and associated policies.
22. **Microsoft Windows Server Experience (WSE):** At least two (2) years of satisfactory, full-time experience administering Windows servers in a large-scale environment with Windows 2003/2008/2012/2016/2019/2022 Enterprise Server Platform or more recent versions, Active Directory, Microsoft Clustering, and/or Remote Installation Services.
23. **Mobile Application Development (475):** At least two (2) years of satisfactory, full-time experience in the design, development, implementation, maintenance and enhancement of mobile application development. The experience must include, but is not limited to Swift, Objective-C, Java, Kotlin, Android API, xCode, MAC OS X, Google Maps, and Test-Driven Development (TDD).
24. **Municipal Information Technology Experience (ITM):** At least two (2) years experience working for a large Information Technology agency within a municipal government in a similar position, which provides services for a city with over 1 million in population.
25. **Oracle Database Administration 2019 Certified Professional (56K):** At least five (5) years of satisfactory, full-time experience as an Oracle DBA. Valid Oracle Database 19c Administrator certified Associate certification, including completion of the Oracle Database 19c: Admin, Install & Upgrade Accelerated course.
26. **Oracle DBA (580):** At least five (5) years of satisfactory, full-time experience as an Oracle DBA implementing and managing Oracle 19c or higher Oracle RAC environments and non-RAC environments on a Unix/Linux environment, Configure and support Golden gate replication ; both integrated and microservices based configuration, Configure and Support Oracle Data Guard with Active and Standby database modes and Experience with latest Oracle versions and their features such as Multi-tenant Architecture. Strong knowledge in unix shell scripting and automation.
27. **Platform Development Experience (MPD):** At least two (2) years of satisfactory, full-time experience performing development work on platforms including, but not limited to: like Microsoft Dynamics 365, SAP, Oracle Cloud, HubSpot, Salesforce or similar/related platforms.
28. **Product Design (PDE):** At least two (2) years of satisfactory full-time experience building digital products that fulfill user needs and functional objectives.
29. **Project Management Professional (PMP Certification) (PMP):** A valid certification as a Project Management Professional (PMP) from the Project Management Institute (PMI) and at least two (2)

- years of satisfactory, full-time IT project management experience.
30. **Public Safety Technologies (59B):** At least two (2) years of satisfactory, full-time experience in Public Safety technology.
 31. **RedHat Certified Engineer/Administrator (605):** At least five (5) years of satisfactory, full-time experience in environment management with Red Hat Enterprise Linux (RHEL) and experience in deploying, managing, and troubleshooting enterprise-level environments including system administration, configuration management, automation using Ansible, and the security and stability of Linux server.
 32. **Redhat OpenShift Certified Engineers (OCE):** At least two (2) years of satisfactory, full-time experience in environment management deploying, managing, and optimizing OpenShift Container Platform environments; orchestrating containerized applications, automating deployments and ensuring the scalability, security, and performance of the OpenShift clusters; Kubernetes, containerization, and cloud-native applications; Red Hat Enterprise Linux, Ansible, and DevOps practices.
 33. **Salesforce Certified Administrator (65A):** A valid Salesforce Certified Administrator certification and at least two (2) years of satisfactory, full-time experience in administering applications on the Salesforce platform.
 34. **Senior Java Developer (SJD):** At least two (2) years of satisfactory, full-time experience in design, development, implementation, maintenance and enhancement of java applications. The experience should include, but is not limited to: Java, Spring, SpringBoot, Hibernate, Containerization, Docker, Postgres, MySQL, Microsoft SQL Server, Oracle DB, JavaScript, HTML, CSS, CI/CD, Linux.
 35. **Server-Side Development for Web Applications (61A):** At least two (2) years of satisfactory, full-time experience in the design, development, implementation, maintenance and enhancement of server-side applications in a web-based environment. The experience must include, but is not limited to Java/J2EE, .NET, Python, PHP, Spring, Hibernate, Test-Driven Development (TDD), Junit, Eclipse, IntelliJ, Tomcat, JBoss, Oracle Weblogic, Visual Studio, Azure DevOps, AWS, Git, Subversion and CVS.
 36. **ServiceNow Certified System Administration (613):** A valid ServiceNow Certified System Administrator Certification and at least two (2) years of satisfactory, full-time experience in designing, developing and customizing ServiceNow applications, providing support to end users, administering workflows, implementing new add-ons, and assisting in problem resolution.
 37. **Software Quality Assurance Testing (66Z):** At least two (2) years of satisfactory, full-time experience in at least one of the following areas: 1) Performing functional testing tasks for applications with browser-based user interfaces and web services (API), ETL, or designed for mobile devices, including but not limited to analyzing business requirements for completeness and testability; designing requirements-based test cases; executing test cases; and registering, reporting and tracking defects using Application Lifecycle Management (ALM) tools (e.g. Azure DevOps, Jira, or ALM/Quality Center) as well as the test management system; handling test data and test results in various locations or formats like files systems, relational databases (using SQL), flat files, JSON, XML, CSV, Excel files; 2) Automating functional test cases for applications with browser-based user interfaces, API-based applications (e.g. SOAP or REST API), or applications designed for mobile devices, using open source test automation tools (e.g., Selenium IDE, Selenium WebDriver, Playwright) in Java, JavaScript, or Python and/or using mobile-based automation tools such as Appium, Android Studio, or Xcode, following test automation methods like recording/parametrization/play back, descriptive programming, or manual coding; AND/OR 3) Conducting performance testing activities such as analyzing application functionality and architecture; script creation; execution, analysis, and reporting of results; troubleshooting application performance issues; and deep diagnostics using LoadRunner and/or Performance Center for applications with a browser-based user interface or API.
 38. **Solution Architecture (626):** At least five (5) Years of satisfactory, full-time hands-on architectural experience in complex information technology assessments and implementations, such as experience in architecting complex largescale systems incorporating packaged and custom applications. The experience must include knowledge of application architectures, enterprise architecture, release methodologies, project management, infrastructure support, production support, client/server applications, internet and intranet applications, operating systems (Solaris, Windows, etc.), database platforms (Oracle, Microsoft, IBM, etc.), desktop platforms, mobile platforms, web platforms, application frameworks (Java, .NET, etc.), content managers, portal products, application integration, SOA, and development methodologies and environments.
 39. **Solutions Design Management (627):** At least five (5) years of satisfactory, full-time experience implementing commercial off-the-shelf (COTS) applications for business areas like Customer Relationship Management (CRM) and Business Intelligence (BI). Experience must include leading a team of solution designers and analysts performing solutions design work; defining high-level design principles and approaches for the team; setting the agenda for the quality of solutions design work; mentoring and managing design resources to support the delivery of software solutions to time, budget and quality targets; monitoring and maintaining standards and practices as design methodologies and industry best-practices evolve; collaborating with the project team and key stakeholders to ensure design work is consistent with organization and project goals, strategy and roadmaps; and managing relationships with other teams and personnel.
 40. **Supervisory Control and Data Acquisition Systems (CDT):** At least two (2) years of satisfactory, full-time experience utilizing Supervisory Control and Data Acquisition (SCADA) systems or similar operational technology and critical infrastructure.
 41. **SQL DBA (718):** At least five (5) years of satisfactory, full-time experience in Microsoft SQL Server Administration and Development including SQL Server Database performance management and tuning, database fault analysis and resolution, and effective Database Backup/Recovery strategy deployment; Experience working with high availability and server tuning including parameters, resources, contention and applying security patches; power shell and automation.
 42. **Technical Software Quality Assurance (722):** At least two (2) years of satisfactory, full-time experience as a user interface functional tester writing object-oriented code for: automated processing of files in various formats like flat files and .csv; XML, JSON file format and concept; programmatically handling and parsing XML, JSON files for the purpose of automated testing; testing data transformation processes for large amounts of data using ETL tools including Informatica; handling manually and programmatically testing for various integration protocols (e.g., SOAP and REST web services, FTP, MQ); and querying databases using complex SQL queries. Experience must include working with OLAP systems (e.g., OBIEE), reporting engine development tasks, execution of prebuilt and ad-hoc queries and testing various reporting objects.
 43. **User Interface / User Experience Design w/ Experience (UIE):** At least two (2) years of full-time experience in User Experience Design, including software interaction design, visual design, front-end coding, and Agile/Waterfall methodologies using communication and visual design software (e.g.,

- Figma, Adobe Creative Cloud, Microsoft Office, Apple productivity applications).
44. **VM Ware Engineering (Wintel) (744):** A Valid VM Ware Certified Professional and at least two (2) years of satisfactory, full-time experience in Converged Network Architectures, 10 GB, NFS and/or Cisco Nexus (1k, 2k, 5k, 7k or higher).
 45. **Web Design w/ Experience (WDE):** At least two (2) years of satisfactory, full-time experience in web design, photo and graphics editing, user experience design, user interaction design, and information architecture design, one (1) year of which must have been experience in responsive web design, knowledge of and experience in designing to accessibility standards (WCAG level A and AA), HTML5 and CSS3.
 46. **Website Analytics (ALE):** At least two (2) years of satisfactory, full-time experience implementing analytics tags on digital websites and apps and analyzing data from multiple resources to generate actionable insights.
 47. **Windows Desktop Support Engineering (790):** At least two (2) years of satisfactory, full-time experience in the design, development, implementation, maintenance and enhancement of systems, applications, operating systems and computer imaging in a Microsoft Windows environment including Microsoft Office Suite, Microsoft Operating Systems, Browser-based applications (.NET Framework, Java), Adobe Suite, Trellix/CrowdStrike, Active Directory, MDM/Workspace One UEM, SCCM and Azure Virtual Desktops/VDI.
 48. **Windows Endpoint Management Experience (WEM):** At least five (5) years of satisfactory full-time experience in Windows Endpoint Management including but not limited to managing Client Management systems (MECM/SCCM, Intune, Workspace One UEM, etc.), Windows Design Engineering, software packaging/scripting, GPO/CSP configuration), L3 operational support, and vulnerability/patch management.
 49. **Windows Systems Administration (792):** At least two (2) years of satisfactory, full-time experience administering Windows servers in a large-scale environment with Windows 2003/2008/2012/2016/2019/2022 Enterprise Server Platform or more recent versions, Active Directory, Microsoft Clustering, and/or Remote Installation Services.
 50. **Wireless Operations Support (WOS):** At least five (5) years of satisfactory, full-time experience maintaining responsibility for wireless deployment and operational infrastructure through the identification and evaluation of wireless coverage and protection measures and controls around the technical operations infrastructure. In addition, must have been responsible for operations and maintenance of enterprise information wireless controls and for ensuring that the appropriate operational security procedures are maintained for information systems programs and data.

The above Selective Certification requirements may be met at anytime during the duration of the list. If you meet this requirement at some future date, please submit a request by email to: LMACustomerService@dcas.nyc.gov, or by mail to: DCAS Bureau of Examinations - Exam Development Group, 1 Centre Street, 14th Floor, New York, NY 10007. Please include the examination title and number, your full name, OASys Profile ID number, and the selective certification(s) you are requesting in your correspondence.

Application Receipt:

You will be emailed a receipt immediately after you have applied for the examination. If you do not receive this receipt, check "Junk", "Trash", or "Spam" folders for the primary email linked to your Online Application System (OASys) account. If you are unable to locate the email, you can view a summary of the notification email to you on your OASys Dashboard, then Notifications. If you are still unable to find the email, please email DCAS via the Contact feature available in OASys with a description of the issue and include the exam number and your profile number located on your Profile page. While on your Profile page, check that the email addresses you provided are correct and/or updated.

Promotion Test: A promotion examination for this title is being held for eligible employees. The names appearing on the promotion list will be considered first in filling vacancies.

PENALTY FOR MISREPRESENTATION:

Any intentional misrepresentation on the application or examination may result in disqualification, even after appointment, and may result in criminal prosecution.

The General Examination Regulations of the Department of Citywide Administrative Services (DCAS) apply to this examination and are part of this Notice of Examination. They are posted at nyc.gov/dcas and copies are available at the DCAS Computer-based Testing & Application Centers.

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