

Role Description

Digital Developer

Cluster	Enterprise, Investment and Trade
Agency	Museum of Applied Arts and Sciences
Division/Branch/Unit	Powerhouse Studio
Location	Ultimo, Parramatta, Castle Hill and Millers Point
Classification/Grade/Band	Clerk Grade 7/8
ANZSCO Code	261212
PCAT Code	1226492
Role Number	50052947
Date of Approval	November 2022
Agency Website	maas.museum

Agency overview

The Museum of Applied Arts and Sciences sits at the intersection of the arts, design, science and technology and plays a critical role in engaging communities with contemporary ideas and issues. Established in 1881, the museum includes the Powerhouse Museum Ultimo, Sydney Observatory, the Museums Discovery Centre in Castle Hill and will expand to include the museum's new flagship - Powerhouse Parramatta. The Museum is custodian to over half a million objects of national and international significance and is considered one of the finest and most diverse collections in Australia.

The Museum of Applied Arts and Sciences is undertaking landmark renewal program which includes the creation of Powerhouse Parramatta, the largest cultural infrastructure project since the Sydney Opera House; the expansion of Museum's Discovery Centre, Castle Hill which includes expanded storage and new research and public facilities and the renewal of the iconic Powerhouse Museum in Ultimo. Key to the renewal is the assessment and digitisation of over 380,000 objects from the museum's collection providing new levels of access.

Primary purpose of the role

Working within the Digital Studio team, the Digital Developer supports the development and ongoing operation of Powerhouse digital products. The primary function of the role is to translate software design concepts and ideas into reality using front-end technologies considering user interface design solutions. The Developer coordinates the implementation of software components, system change and maintain/monitors the scheduling process ensuring service level agreements are delivered on time to expected standards for Powerhouse digital platforms and products.

Key accountabilities

- Develop effective digital solutions including workflows and integrations to support the development and ongoing operation of Powerhouse digital platforms and products.
- Collaborate with internal teams and industry to review specifications and use agreed specifications, and correct standards and tools applying security standards, best practice methodologies and industry recognised standards, processes, and systems to design, code, test and document programs or scripts of medium to high complexity.
- Act as client support, system support and contact point to internal teams and user groups by identifying and resolving incidents, technical problems and service requests.
- Complete unit/system testing and gather feedback to improve quality and reduce operational risk of Powerhouse platforms/applications, ensuring risks are adequately understood, documented, and mitigated.
- Coordinate team deliverables including design, testing and iterative development to ensure quality audience outcomes – including (but not limited to) the Powerhouse website, collection website, microsites, and interpretive/interactive experiences.
- Identify and explore opportunities for service and business improvement including analysis and response to customer feedback and insights and contribute to ongoing improvements to products and service delivery, recognising the potential for automation of processes.

Key challenges

- Providing high quality development services given tight timeframes
- Responding to requests for information and advice while balancing competing demands to ensure project objectives are achieved.
- Identifying digital platform/products and project interdependencies and balancing competing demands to ensure project deliverables are achieved

Key relationships

Who	Why
Internal	
Executive	<ul style="list-style-type: none">• Receive guidance and provide regular updates on project outcomes, issues, and priorities.
Head of Digital	
Digital Product Manager	<ul style="list-style-type: none">• Provide advice and contribute to decision making
Specific Teams/Departments	<ul style="list-style-type: none">• Work collaboratively to contribute to achieving team outcomes.
External	
External partners, collaborators, vendors and suppliers.	<ul style="list-style-type: none">• Building and maintaining relationships with external partners and other collaborators.• Provide project-related advice and updates; collaborate and liaise with in the development of digital platforms and products.

Role dimensions

Decision making

This role:

Some autonomy and is accountable for delivery of services, working within approved plans, frameworks, budgets, and quality standards. Consults and refers to the Digital Product Manager and Director, Strategy and Operations for decisions regarding project outcomes and timeframes, issues that may escalate, high level financial delegation, or submissions to the Executive Team, Trustees or Government.

Reporting line

Technical Lead, Digital Platforms

Direct reports

Nil

Budget/Expenditure

This role has no financial delegation

Essential requirements

Appropriate tertiary qualification or relevant, equivalent professional experience in digital product development and delivery.

Technical requirements

- Strong understanding of core web technologies, including JavaScript, HTML5 and CSS3.
- Experience working with SQL databases required. Practical knowledge of MongoDB is a plus.
- Experience with headless CMS implementation including methods to ensure high-performance and availability.
- Knowledge and familiarity developing with ReactJS, Next JS or other JavaScript frameworks. Experience with build & test tools such as Turbo repo & Jest is highly regarded.
- Good understanding of Git version control.
- Comfortable working in Unix-like development environments. Docker experience is a plus.
- Experience developing applications that integrate cloud services such as AWS is desirable.
- Experience working with Shopify's Liquid templating language or a similar e-commerce platform.
- Experience implementing and analysing web traffic analytics.
- Demonstrated ability to implement web applications with expert working knowledge of contemporary web programming technologies including Node JS, GraphQL & REST APIs, JSON, XML, responsive design and web standards.

General requirements

- Contribute to the proposal, development and implementation of the Museum's online presence and digital services in keeping with the Strategic Plan.
- Ensure the provision of a high standard of internal and external customer service across the Museum's digital platforms.

- Foster and encourage a creative environment conducive to innovative and creative practice.
- Work in an interdisciplinary manner across project teams and Museum initiatives.
- Adhere to all obligations, responsibilities, and legislative requirements under current Work Health & Safety (WHS) Acts and Regulations, ensuring all areas under supervision are monitored for WHS risks and hazards and are reviewed regularly.



Capabilities for the role

The NSW Public Sector Capability Framework applies to all NSW public sector employees. The Capability Framework is available at www.psc.nsw.gov.au/capabilityframework



Focus capabilities

Focus capabilities are the capabilities considered the most important for effective performance of the role. These capabilities will be assessed at recruitment.



The focus capabilities for this role are shown below with a brief explanation of what each capability covers and the indicators describing the types of behaviours expected at each level.

FOCUS CAPABILITIES			
Capability group/sets	Capability name	Behavioural indicators	Level
	<p>Manage Self</p> <p>Show drive and motivation, an ability to self-reflect and a commitment to learning</p>	<ul style="list-style-type: none"> • Adapt existing skills to new situations • Show commitment to achieving work goals • Show awareness of own strengths and areas for growth, and develop and apply new skills • Seek feedback from colleagues and stakeholders • Stay motivated when tasks become difficult 	Intermediate
	<p>Commit to Customer Service</p> <p>Provide customer-focused services in line with public sector and organisational objectives</p>	<ul style="list-style-type: none"> • Focus on providing a positive customer experience • Support a customer-focused culture in the organisation • Demonstrate a thorough knowledge of the services provided and relay this knowledge to customers • Identify and respond quickly to customer needs • Consider customer service requirements and develop solutions to meet needs • Resolve complex customer issues and needs • Cooperate across work areas to improve outcomes for customers 	Intermediate
	<p>Work Collaboratively</p> <p>Collaborate with others and value their contribution</p>	<ul style="list-style-type: none"> • Build a supportive and cooperative team environment • Share information and learning across teams • Acknowledge outcomes that were achieved by effective collaboration • Engage other teams and units to share information and jointly solve issues and problems • Support others in challenging situations • Use collaboration tools, including digital technologies, to work with others 	Intermediate



FOCUS CAPABILITIES

Capability group/sets	Capability name	Behavioural indicators	Level
 <p>Results</p>	<p>Think and Solve Problems</p> <p>Think, analyse and consider the broader context to develop practical solutions</p>	<ul style="list-style-type: none"> • Research and apply critical-thinking techniques in analysing information, identify interrelationships and make recommendations based on relevant evidence • Anticipate, identify and address issues and potential problems that may have an impact on organisational objectives and the user experience • Apply creative-thinking techniques to generate new ideas and options to address issues and improve the user experience • Seek contributions and ideas from people with diverse backgrounds and experience • Participate in and contribute to team or unit initiatives to resolve common issues or barriers to effectiveness • Identify and share business process improvements to enhance effectiveness 	Adept
 <p>Business Enablers</p>	<p>Technology</p> <p>Understand and use available technologies to maximise efficiencies and effectiveness</p>	<ul style="list-style-type: none"> • Identify opportunities to use a broad range of technologies to collaborate • Monitor compliance with cyber security and the use of technology policies • Identify ways to maximise the value of available technology to achieve business strategies and outcomes • Monitor compliance with the organisation's records, information and knowledge management requirements 	Adept

Occupation specific focus capability set

Capability Set / Skill	Category and Sub-Category	Level Descriptions	Level and Code
<p>Programming / software development</p> 	<p>Development and implementation</p> <p>Systems development</p>	<ul style="list-style-type: none"> • Designs, codes, verifies, tests, documents, amends and refactors moderately complex programs/scripts. • Applies agreed standards and tools, to achieve a well-engineered result. • Collaborates in reviews of work with others as appropriate. 	<p>Level 3</p> <p>PROG</p>
<p>Systems integration and build</p> 	<p>Development and implementation</p> <p>Installation and integration</p>	<ul style="list-style-type: none"> • Defines the software modules needed for an integration build and produces a build definition for each generation of the software. • Accepts completed software modules, ensuring that they meet defined criteria. • Produces software builds from software source code for loading onto target hardware. 	<p>Level 3</p> <p>SINT</p>





Occupation specific focus capability set

Capability Set / Skill	Category and Sub-Category	Level Descriptions	Level and Code
		<ul style="list-style-type: none"> • Configures the hardware and software environment as required by the system being integrated. • Produces integration test specifications, conducts tests and records and reports on outcomes. • Diagnoses faults and records and reports on the results of tests. • Produces system integration reports. 	
Application support 	Delivery and operation Service operation	<ul style="list-style-type: none"> • Identifies and resolves issues with applications, following agreed procedures. • Uses application management software and tools to collect agreed performance statistics. • Carries out agreed applications maintenance tasks. 	Level 3 ASUP
Testing 	Development and implementation Systems development	<ul style="list-style-type: none"> • Reviews requirements and specifications, and defines test conditions. • Designs test cases and test scripts under own direction, mapping back to pre-determined criteria, recording and reporting outcomes. • Analyses and reports test activities and results. • Identifies and reports issues and risks associated with own work. 	Level 3 TEST



Complementary capabilities

Complementary capabilities are also identified from the Capability Framework and relevant occupation-specific capability sets. They are important to identifying performance required for the role and development opportunities.

Note: capabilities listed as 'not essential' for this role are not relevant for recruitment purposes however may be relevant for future career development.

COMPLEMENTARY CAPABILITIES			
Capability group/sets	Capability name	Description	Level
 Personal Attributes	Display Resilience and Courage	Be open and honest, prepared to express your views, and willing to accept and commit to change	Intermediate
	Act with Integrity	Be ethical and professional, and uphold and promote the public sector values	Foundational
	Value Diversity and Inclusion	Demonstrate inclusive behaviour and show respect for diverse backgrounds, experiences and perspectives	Foundational
 Relationships	Communicate Effectively	Communicate clearly, actively listen to others, and respond with understanding and respect	Intermediate
	Influence and Negotiate	Gain consensus and commitment from others, and resolve issues and conflicts	Intermediate
 Results	Deliver Results	Achieve results through the efficient use of resources and a commitment to quality outcomes	Intermediate
	Plan and Prioritise	Plan to achieve priority outcomes and respond flexibly to changing circumstances	Intermediate
	Demonstrate Accountability	Be proactive and responsible for own actions, and adhere to legislation, policy and guidelines	Intermediate
 Business Enablers	Finance	Understand and apply financial processes to achieve value for money and minimise financial risk	Foundational
	Procurement and Contract Management	Understand and apply procurement processes to ensure effective purchasing and contract performance	Foundational
	Project Management	Understand and apply effective project planning, coordination and control methods	Intermediate

Occupation specific complimentary capabilities

Capability Set / Skill	Category and Sub-category	Description	Level and Code
Requirements definition and management 	Change and transformation	The elicitation, analysis, specification and validation of requirements and constraints to a level that enables effective development and operations of new or changed software, systems, processes, products and services. The management of requirements throughout the whole of the delivery and operational life cycle of the software, system, processes, products or services.	Level 2 REQM
	Business change management	The negotiation of trade-offs that are both acceptable to key stakeholders and within budgetary, technical, regulatory, and other constraints. The adoption and adaptation of requirements management lifecycle models based on the context of the work and selecting appropriately from plan-driven/predictive approaches or more adaptive (iterative and agile) approaches.	
Systems design 	Development and implementation	The design of systems to meet specified requirements, compatible with agreed systems architectures, adhering to corporate standards and within constraints of performance and feasibility. The identification of concepts and their translation into a design which forms the basis for systems construction and verification.	Level 4 DESN
	Systems development	The design or selection of components. The development of a complete set of detailed models, properties, and/or characteristics described in a form suitable for implementation. The adoption and adaptation of systems design lifecycle models based on the context of the work and selecting appropriately from predictive (plan-driven) approaches or adaptive (iterative/agile) approaches.	