

# QA Automation Engineer

## Information, Systems and Change

| Overview                 |  |
|--------------------------|--|
| <b>Role Purpose</b>      | <p><b>A proven and experienced QA Automation Engineer, you will be pivotal in developing and maintaining NHG's flagship digital platform; transforming our ways of working and customer experience.</b></p> <p>Reporting to the Lead QA Automation Engineer, working in agile way on a range of projects, you'll be involved in the quality assurance stage of software development and deployment. You'll conduct automated and manual tests to ensure the software created by developers is fit for purpose to avert risk and prevent software issues.</p> <p>You will have a keen eye for detail and excellent communication skills to feed back to the team to reach a resolution in a timely manner. The result being our in-house and customer facing systems work correctly in line with business needs through use of manual, automated, UAT and regression testing.</p> |
| <b>Responsible for</b>   | <ul style="list-style-type: none"> <li>• Manage &amp; maintain existing automation suites</li> <li>• Managing continuous integration on assigned projects through the execution of manual, automated, functional, Non-functional tests and Data testing.</li> <li>• Work closely with project team to gather requirement and build the test cases with reusability.</li> <li>• Work with Project/Release/Sprint teams with the primary focus on effective co-ordination of resolution of outstanding defects in line with Project/Release timeline</li> <li>• Guide developers, on all QA automation</li> <li>• Assume a high level of ownership of all work developed by members of the team.</li> </ul>  |
| <b>Reports to</b>        | Lead QA Automation Engineer  |
| <b>Line management</b>   | N/A  |
| <b>Tier</b>              | Tier 7   |
| <b>Expectation Level</b> | Team Manager   |
| Role relationships       |  |
| <b>Internal</b>          | Digital Technology Team, IT, PMO, Product Management and/or other internal Business Units  |
| <b>External</b>          | Microsoft, external solutions/service providers and partners   |

## Role accountabilities

- Review and analyse system specifications
- Write, agree, and execute automated test scripts with the business. On occasions collaborate with the Business Analysts/Developers (if required).
- Devise innovative ways to address business requirements/problems based on robust technology solutions
- Manage testing processes (manual or automated) analysing results, ensuring that testing is well organised and appropriately managed with minimal impact on operations.
- Evaluate product code according to specifications
- Create logs to document outcome of testing phases and defects
- Troubleshoot issues resulting from testing e.g., bugs and errors. Reporting these to the Development team recommending any changes or where possible implementing these changes.
- Conduct post-release/ post-implementation testing
- Design, monitor and maintain QA reports, KPIs & quality trends for the internal data systems
- Design and build test automation framework for testing data validation scenarios and processes related to data ingestion, pipelines, and transformation.
- Work with cross-functional teams to ensure quality throughout the software development lifecycle
- Work closely with the development teams and 3rd Parties to support the smooth implementation of the solutions being delivered
- Assume a high level of ownership of all work developed by members of the team
- Work cross functionally to ensure any business, operational or system changes are captured and integrated
- Coach and mentor junior colleagues through training and individual support
- Ensure the team continue to produce high levels of services, expertise, development, and test processes that are scalable and maintainable within expectations of the stakeholders (including adherence to SDLC)
- Ensure the appropriate levels of system and support document are created and maintained
- Participate as a member of digital technology team, contributing to software development discussions, investigating the use of new development tools, and facilitating change

### General

- Ensure you follow the financial regulations, policies, and procedures at NHG
- Ensure that you follow relevant Health and Safety policies and related procedures, keeping up to date with changes and taking action to maintain personal health and safety and that of others.

The tasks and responsibilities outlined above are not exhaustive; the post holder may undertake other duties as is reasonably required.

To do the job well, we have outlined the knowledge, experience, and skills you need to do the job.

| Personal Specification  |   |
|---|---|
| Professional expertise (know how & experience)  |   |
| Essential   | Desirable   |
| <ul style="list-style-type: none"> <li>Proven experience as a QA automation engineer or similar role</li> <li>Ability to document and troubleshoot errors.</li> <li>Experience and knowledge of writing and working with automated test tools (C# Postman, AzureDevOps, BDD - SpecFlow, Selenium etc.)</li> <li>Experience in testing ReactJS and .NET applications</li> <li>Experience of testing Azure cloud applications and data solutions</li> <li>Create and maintain API automation test framework</li> <li>Experience with Data Lake/Delta Lake technologies.</li> <li>Strong experience in working with MS SQL with the ability to extract and manipulate data.</li> <li>Excellent communication skills.</li> <li>Attention to detail.</li> <li>Analytical mind and problem-solving aptitude.</li> <li>Strong organisational skills.</li> <li>Strong understanding of technical architecture of complex applications</li> <li>Strong understanding of object orientated programming</li> <li>A proven track record of functional testing at various levels such as: Integration Testing, Smoke Testing, User Acceptance Testing, Interface Testing / Usability Testing, System Testing, API Testing, and Regression Testing.</li> <li>Experience within the Azure cloud, particularly with Databricks, Data Factory, and Synapse.</li> <li>Strong understanding of Data modelling.</li> <li>A proven experience in database testing and automation with ETL/ELT processes.</li> <li>Strong interest in latest data engineering technologies, best practises, techniques and trends in the data industry</li> </ul> | <p>Familiarity with Scrum framework and developing software in an Agile manner</p>  |
| Skills  |   |
| Essential   | Desirable   |
| <ul style="list-style-type: none"> <li>Testing tools (Postman, JMeter, Swagger, SOAPUI)</li> </ul>  | <ul style="list-style-type: none"> <li>Azure Integration Services development (e.g., Azure logicApps, Azure Functions)</li> <li>Dynamics 365 &amp; SharePoint Online</li> </ul> |

|  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Test framework using BDD (SpecFlow, Selenium etc.)</li> <li>• JS frameworks such as React, Bootstrap, and JQuery; and an understanding of HTML and CSS</li> <li>• C#, .NET, Python and Web API/RESTful API</li> <li>• PowerBI.</li> <li>• Azure for DevOps</li> <li>• Azure SQL, SQL 2012, 2104, NoSQL (CosmosDB ) and Oracle</li> <li>• Distributed source control i.e. GIT</li> </ul> | <ul style="list-style-type: none"> <li>• PySpark</li> </ul> |
|--|---|

| Qualifications and/or professional membership                   |           |
|---|-----------|
| Essential   | Desirable |
| Bachelor's degree in computer science or equivalent experience. |           |

| NHG Expectations   |
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| <p>NHG expectations framework outlines what we expect from our staff at the five different expectation levels we have across the organisation.</p> <p>This role is a Team Manager expectation level and therefore you should refer to the Team Manager expectation profile in addition to this role profile.</p> <p>The full NHG expectations framework is available on our external job site page and intranet, Milo.</p> |

You'll be assessed on the knowledge, experience, skills, and expectations criteria at various stages throughout the selection process.