



Role: Ticketing and Retail Test Engineer

Directorate: Customer and Growth – Ticketing

Salary Band: Band 7

Post reference: TK25

Job Evaluation Date: 05/08/2019

Role statement of purpose:

A Test Engineer is responsible for the Testing of technology products and services. Test Engineers contribute to the overall Software Development Lifecycle Process and are responsible for the operational stability of the products under test, and affects change in the on-going robustness, resilience and stability of those products through continuous quality assurance throughout the lifetime of the product.

Test Engineers are able to translate user centric designs, end user requirements, user stories, service expectations and technical designs into multi-level test strategies and scripts. They then execute these scripts to ensure solutions meet the needs of their users and underpin the delivery of robust business services.

Reports to: Senior or Lead Test Engineer

Key Role Outputs (KROs) <i>these set out what must be achieved for the post holder to be successful in the role</i>	Key Actions <i>These set out how the KROs will be achieved – the activities required.</i>
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A Test Engineer is able to perform comprehensive products and service testing activities, taking ownership of identifying test requirements from the business. They take ownership of ensuring products and services are tested to a high-quality level before delivery to customers.

1.	Delivery of high quality and cost-effective technology solutions that meet the goals of the business	<ul style="list-style-type: none"> • Create and deliver test plans that ensure TfGM services are fit for purpose for our customers and are delivered through a high-quality assurance test service • Transforms business requirements to test scripts that can be used to accurately assess product and service quality • Develop comprehensive suites of tests (both automated and manual) to ensure adequate test coverage • Develop and maintain test strategies that account for distributed, event-driven systems including eventual consistency, cross-service data flows and third-party integrations • Collaborate with Product Owners, UX Designers, Architects, Business Analysts, Software Engineers and other Test Engineers to ensure test plans/scripts align with concepts • Own the traceability of test requirements through to test delivery and ensure comprehensive test performance documentation is present at all times • Identify and resolve testing issues preventing delivery or continuation of software testing activities • Deliver a fit for purpose, robust test suite and where gaps are indicated and ensure these are escalated to the Senior Development Engineer and wider team • Carry out agreed test maintenance tasks • Identify and create test data requirements • Develop comprehensive technical documentation for use in the testing and certification of products and services
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<p>2.</p>	<p>Test engineering practices and tools are efficient and supportive of delivery team timelines and goals</p>	<ul style="list-style-type: none">• Assure there is a fit for purpose, robust automated test suite• Define version control strategies for the test scripts associated with the product• Build testing components that reuse patterns, libraries and configurations consistently and effectively• Agrees testing operational requirements and builds testing solutions that are easy to operate and maintain throughout the life of the product• Takes responsibility for creating and keeping up a positive and collaborative working environment
<p>3.</p>	<p>Test methods, code, data and environments are well managed and reflect current industry best practice</p>	<ul style="list-style-type: none">• Identify opportunities to optimise the current test process and get buy in to the changes by communicating/presenting them to peers and managers to reach a successful outcome.• Design and develop reusable libraries and services and promote reuse across the department• Produce comprehensive testing technical documentation for wider consumption across the department• Assist in the development of medium to long term strategies for the testing of products• Champion technical evolution within the Ticketing Team• Innovate and identify new ways of working and new toolsets/processes that will benefit the Ticketing Team
<p>4.</p>	<p>High levels of customer satisfaction with TfGM services</p>	<ul style="list-style-type: none">• Works with the wider Ticketing Team to ensure that releases are of a high quality• Assist in the investigation and resolution of defects and problems• Receives customer feedback and adapts working practices to resolve identified issues• Works with the Ticketing Team to improve deliveries that can positively impact customer satisfaction• Carry out agreed test infrastructure maintenance tasks• Identify and drive resolution of issues in system robustness, resilience and stability• Takes ownership of defects, working within a multidisciplinary team to ensure they are addressed

5.	Makes a positive contribution to Testing processes and standards	<ul style="list-style-type: none"> • Is committed to continuous improvement in ways of working • Contribute to building a digital culture in the department • Be committed to continuous development • Coach and mentor less experienced Engineers, colleagues and peers
Compulsory Outputs (COs) <i>these set out what must be achieved for the post holder to be successful in the role</i>		Key Actions <i>These set out how the COs will be achieved – the activities required.</i>
C1	Ensure you comply with all applicable organisational legislation and policy:	<ul style="list-style-type: none"> • TfGM Safety Management System (In particular section SMS 201 Roles and Responsibilities) • PCI DSS standards, policies and procedures • Bus Operator contractual management • Dignity at Work policy; • Information assurance and security in line with Cabinet Office requirements; • Risk management • TfGM policies and procedures • Equality and diversity legislation • TfGM Vision & Values • Act in accordance with TfGM’s behaviours and competencies • IS & Ticketing Operations policies and procedures • IS Security Policies and Procedures
C2	Any other reasonable duties as required	<p>The post holder is representative of Ticketing and is expected to:</p> <ul style="list-style-type: none"> • Conduct themselves in a professional manner and with due courtesy at all times. • Be flexible within the workplace and adapt to meet the requirements of service, specifically within this role, occasionally being required to work outside core hours (e.g. evenings, weekend and overnight). <p>Be on call as part of a rota to ensure the team provides 365/24/7 on call for major incidents cover.</p>

Key Interdependencies



Key Contacts	<ul style="list-style-type: none"> • Partners and suppliers • People within the Ticketing Department • Business Partners within HR, Procurement and Finance • Leads within Ticketing Department • Head of Ticketing • Product Owners and “Heads of” across the business
Direct reports	Supervision of Associate Test Engineer(s)
Budgetary responsibility	None
Location	TfGM, 2 Piccadilly Place, Piccadilly, Manchester, M1 3BG

Office Use Only	Updated	Updated	Updated	Updated	Updated
Created					
By: Simon Mather Nov 2018	By: Chris Sproston March 2022 JE date: 04/05/2022	By: Mark Cunliffe Oct 25			



	ROLE: Ticketing and Retail Test Engineer (Knowledge, skills and experience required at selection stage)
E	Essential Experience:
E1	TECHNOLOGY DELIVERY <ul style="list-style-type: none">• Experience working in a multidisciplinary environment, delivering products on time and engaging Stakeholders• Shares their findings and progress clearly, assessing and reporting on readiness• Experience of working with the controls needed to manage live defects• Familiar with Agile Delivery Methods
E2	NON-FUNCTIONAL TESTING <ul style="list-style-type: none">• Experience testing interfaces between distributed systems (APIs, message buses, event-driven architectures)• Experience of testing digital application conformance to WCAG, device compatibility and responsiveness• Awareness of non-functional testing concerns such as resilience, eventual consistency and data integrity across services
E3	TEST TOOLS AND TECHNIQUES <ul style="list-style-type: none">• Test automation using modern frameworks such as Playwright, Vitest, Cypress or similar• Experience writing tests in TypeScript or JavaScript• Experience of CI/CD pipelines (GitHub Actions, Jenkins or similar) including automated test execution and reporting• Experience of compatibility testing with physical devices or BrowserStack or similar• Familiarity with version control workflows using Git• Familiar with Agile delivery methodologies
E4	BEST PRACTICE <ul style="list-style-type: none">• Experience applying TDD or BDD practices (Red/Green/Refactor, Given/When/Then)• Understands modern testing principles including testing behaviour over implementation• Analysed testing processes and contributed to their optimisation• Experience of structuring tests across multiple levels (unit, integration, end-to-end) appropriate to the system under test
E5	FUNCTION CONTRIBUTION <ul style="list-style-type: none">• Able to develop and present ideas that improve on the methods and tools used by the Function• Able to communicate and present to small groups

D	Desirable Experience:
D1	Requirements Definition & Management — SFIA Level 4
D2	Testing — SFIA Level 5
D3	Programming / Software Development — SFIA Level 4
D4	Experience with event-driven or microservices architectures
D5	Experience with cloud platforms (AWS) and infrastructure-as-code concepts
D6	Experience testing payment, ticketing or retail systems
D7	Relationship Management — SFIA Level 5
EQ	Essential Qualifications – Technical, Vocational or educational:
EQ1	GCSEs or an equivalent
DQ	Desirable Qualifications – Technical, Vocational or educational:
DQ1	A degree or equivalent industry experience
DQ2	ISEB/ISTQB Foundation level or equivalent experience
DQ3	Agile / Scrum certified
EA	Essential Attributes:
EA1	RELIABLE by doing what we say we will do
EA2	HONEST in our communications and our feedback
EA3	RESPECTFUL in how we behave
EA4	REWARDING by recognising a job well done
EA5	EMPOWERING by enabling potential to be realised
DA	Desirable Attributes: