BCS Digital Industries Apprenticeship

Template 4 – Employer Reference

Level 3 Software Development Technician Apprenticeship

Version 3.0
May 2019

Change History

Any changes made to the project shall be clearly documented with a change history log. This shall include the latest version number, date of the amendment and changes made. The purpose is to identify quickly what changes have been made.

Version Number and Date	Changes Made
V3.0 May 2019	Change History table added to document. Major changes to document throughout. Standard specific competencies and proficiencies unchanged.

Software Development Technician Template 4 – Employer Reference

Apprentice Details

Name	
	Krystle Mensah
ULN number	

Training Provider Details

Contact name	
Company name	
Company address	

Employer Details

Name	Imedia8
Company address	2 Commerce Road Brentford Middlesex TW8 8LG

Signed by: Petronela Murgu

Print name: Petronela Murgu

Job title: Operations DIrector

Date: 20 October 2020

Section 1
Starting the Apprenticeship

The apprentice may have just joined your organisation but could also be an existing employee who has joined the apprenticeship programme.

The intent of the employer reference is for you to support your apprentice by validating the evidence that they have submitted for end point assessment (EPA).

You should complete this initial section when the apprenticeship starts.

Software Development Technician Standard Number ST0128

The knowledge, skills and behaviours that must be demonstrated by the end of this apprenticeship are defined by the Standard:
https://www.instituteforapprenticeships.org/apprenticeship-standards/software-development-technician/

Role Profile

A Software Development Technician typically works as part of a software development team, to builds simple software components (whether web, mobile or desktop applications) to be used by other members of the team as part of larger software development projects. They will interpret simple design requirements for discrete components of the project under supervision. The approach will typically include implementing code, which other team members have developed, to produce the required component. The Software Development Technician will also be engaged in testing that the specific component meets its intended functionality.

Typical Job Roles

Software Development Technician, Junior Developer, Junior Web Developer, Junior Application Developer, Junior Mobile App Developer, Junior Games Developer, Junior Software Developer, Junior Application Support Analyst, Junior Programmer, Assistant Programmer and Automated Test Developer.

Please complete the following fields:

Job Title of Apprentice	Brief Summary of the Common Duties that the Apprentice Will be Doing for your Organisation	Date Started
Junior Software Developer	Work on new product innovations, work on new conceptual platforms, be part of a team of developers working on platform product for our main client in USA. Create test plans and make sure the product specs are covered. Responsible for build and test stages of the development cycle.	

The standard defines the technical knowledge and understanding that will be required by the apprentice, these will generally be delivered by the training provider that you have chosen to

work with. This knowledge and understanding will be confirmed by two knowledge modules, each of these must be successfully covered by passing an approved knowledge module exam.

Over their time on the apprenticeship, your apprentice will apply the underpinning knowledge gained through the training to actual work-related activities required by the role that you have employed them to fulfil. The apprentice should work with one or more mentors within your organisation who will provide advice, guidance and training on how the knowledge gained by the apprentice is applied in actual working situations.

The standard also defines a number of technical competences, your apprentice must demonstrate competence in all of them to achieve the standard. The following must be demonstrated by the apprentice in their Summative Portfolio, which provides evidence against the totality of the standard, based on the application of knowledge, competence and behaviours to real work projects in the work environment.

Technical Competencies

- **Logic:** writes simple code for discrete software components following an appropriate logical approach to agreed standards (whether for web, mobile or desktop applications).

- **Security:** applies appropriate secure development principles to specific software components all stages of development.

- **Development support:** applies industry standard approaches for configuration management and version control to manage code during build and release.

- **Data:** makes simple connections between code and defined data sources as specified.

- **Test:** functionally tests that the deliverables for that component have been met or not.

- **Analysis:** follows basic analysis models such as use cases and process maps.

- **Development lifecycle:** supports the Software Developers at the build and test stages of the software development lifecycle.

- **Quality:** follows organisational and industry good coding practices (including those for naming, commenting etc.)

- **Problem solving:**
  - o solves logical problems, seeking assistance when required (including appropriate mathematical application)
  - o Responds to the business environment and business issues related to software development

- **Communication:** clearly articulates the role and function of software components to a variety of stakeholders (including end users, supervisors etc.)

- **Operates** appropriately in their own business's, their customers' and the industry's environments

- **User Interface:** develops user interfaces as appropriate to the organisation's development standards and the type of component being developed

BCS have created a Standard Specific Guide for this standard and also provides Template 5 – Summative Portfolio Checklist which gives advice and guidance on what types of evidence are suitable for each of the above criteria, it also includes specific details of the minimum evidence requirements.

Please note, the apprenticeship standards are designed to cover a wide range of different job roles so there may be a small number of areas within these mandatory requirements that are not naturally occurring within the day-to-day duties of your apprentice. If you are a larger organisation, it is perfectly acceptable for you to second your apprentice to a different department for a period (at least a week) to allow them exposure to some activities that they may not come into contact with. If this is not possible, you, your apprentice and your selected training provider should select a synoptic project that will allow your apprentice to demonstrate that they are competent in criteria that they are not exposed to during their normal working activities. Please also note, the synoptic project is the only area within the submitted portfolio of evidence that does not draw from the real work environment

Section 2
Technical Competence Evaluation

Please provide your evaluation of the technical competence of the apprentice using the tables below. Under each heading are details of the activities that a competent apprentice should be able to demonstrate by the time that they are judged ready, by you, your chosen training provider and the apprentice themselves, to apply for the EPA.

We strongly recommend that you continually review your apprentice against these competences throughout the duration of the apprenticeship and periodically update this document. A suitable time to add comments and evidence could be during your performance reviews (or similar) with your apprentice.

Competence – Logic
Writes simple code for discrete software components following an appropriate logical approach to agreed standards (whether web, mobile or desktop applications).

How has your apprentice demonstrated competence in this area? (please give examples)
The development projects that Krystle works have content populated from a database-driven CMS that she is responsible for integrating and therefore is easily able to make simple connections between code and the MySQL data source. Over the past year, Krystle has developed her skills in database management. She uses the MySQL workbench tool to establish a connection locally with the database. Able to alter tables, create tables and create databases. The websites that my developers create are very dynamic so it is essential that data can be manipulated quickly.   NOTE: this box will expand as required

Competence – Security
Applies appropriate secure development principles at all stages of development.

How has your apprentice demonstrated competence in this area? (please give examples)
Krystle is competent in applying appropriate secure development principles that are necessary for the specific task of developing our client's projects. Krystle has spoken to another one of my employees who is familiar with making sure that throughout development secure principles are undertaken professionally

Competence – Development Support

Applies industry standard approaches for configuration management and version control to manage code during build and release.

How has your apprentice demonstrated competence in this area? (please give examples)

Krystle has applied industry standard config management to his build and release cycles. This is manifested through a documented protocol to managing versions that all developers must use as a company-wide policy.

I have found Krystle to be careful when dealing with live sites. Krystle makes sure to download the site first from the server using FTP and test that everything is functioning locally before making any updates.

Krystle keeps multiple versions of our Virtual Tour framework on Github. Github allows any of my developers to download a build and make changes. However, before the changes are pushed to the build, Krystle will evaluate the changes before merging.

Competence – Data

Makes simple connections between code and defined data sources as specified.

How has your apprentice demonstrated competence in this area? (please give examples)
How has your apprentice demonstrated competence in this area? (please give examples)

The development projects that Krystle works have content populated from a database-driven CMS that she is responsible for integrating and therefore is easily able to make simple connections between code and the MySQL data source.

Over the past year, Krystle has developed her skills in database management. She uses the MySQL workbench tool to establish a connection locally with the database. Able to alter tables, create tables and create databases.

The websites that my developers create are very dynamic so it is essential that data can be manipulated quickly.

NOTE: this box will expand as required

Competence – Test

Functionally tests that the deliverables for that component have been met or not.

How has your apprentice demonstrated competence in this area? (please give examples)

The final part of all development projects is to assess the build against a structured test program to ensure compliance with internal and client requirements. This functional test program is applied to all components of a project and it is the developer's responsibility to ensure any changes necessary are made prior to release.

Krystle is able to create test plans for each project, I have seen that Krystle has created a spreadsheet that tests the core functionality of the project being tested. I have seen that the spreadsheet is very in-depth and has the date in which this issue was found and solved.

NOTE: this box will expand as required

Competence – Analysis

Follows basic analysis models such as use cases and process maps.

How has your apprentice demonstrated competence in this area? (please give examples)
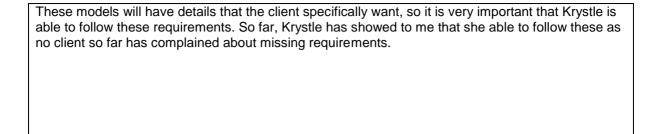
Process maps are key to delivering accurate projects that reflect the client's requirements and Krystle is able to understand and execute such use cases with ease.

Krystle has made sure to use the design sheets that have been filled out by the clients. This shows to me that she has the skill and ability to analyse models that are supplied to her by the client.

These models will have details that the client specifically want, so it is very important that Krystle is able to follow these requirements. So far, Krystle has showed to me that she able to follow these as no client so far has complained about missing requirements.

Competence – Development Lifecycle
Supports the Software Developers at the build and test stages of the software development lifecycle.

How has your apprentice demonstrated competence in this area? (please give examples)
As referenced above, Krystle is a software developer and as such is personally responsible for build and test stages of the development cycle. In this role she followed the requirement.

However, as we have multiple developers, Krystle is able to support these developers. She has a good knowledge of the Virtual Tour system and is able to give accurate support to developers when needed.

For testing it is essential that the developers here work together to test each other's project. Krystle is willing to do this and I have no issue with how she approaches testing other developer's projects.

Competence – Quality
Follows organisational and industry good coding practices (including those for naming, commenting etc.)

How has your apprentice demonstrated competence in this area? (please give examples)

My evaluation of the competence to follow good coding practices is that Krystle has followed the requirement for this. By learning and following our internal best practice guides this is now a default approach to development.

I have watched Krystle write code for projects and I can see that she is able to follow the organisational and industry practices. I have seen Krystle use clear and identifiable class names as recommended by colleagues and developer standard recommendations.

Krystle has made sure to comment code that she has written to help aid other developers

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Competence – Problem solving

Solves logical problems, seeking assistance when required (including appropriate mathematical application) and responds to the business environment and business issues related to software development.

How has your apprentice demonstrated competence in this area? (please give examples)

Krystle is able to approach logical problems with a calm and open mind, this results in a measured approach to solving the challenges she faces asking for support from other team members when appropriate.

NOTE: this box will expand as required

Competence – Communication

Clearly articulates the role and function of software components to a variety of stakeholders (including end users, supervisors etc.)

How has your apprentice demonstrated competence in this area? (please give examples)

Krystle is adept at articulating the role and function of software to stakeholders. That can take the form of regular informal project catch-up meetings and further formal meetings to discuss new features and functionality.

Krystle is capable at changing the various projects to meet the stakeholders' needs.

NOTE: this box will expand as required

Competence – Operates

Operates appropriately in their own business's, their customers' and the industry's environments.

How has your apprentice demonstrated competence in this area? (please give examples)

Krystle can work in the businesses environment very well and has all of the tools available to her. She has multiple monitors as this allows her to easily work.

Krystle has shown to me that she is able to operate appropriately in the client's environment. She has shown this by correctly using the clients branding for the project.

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Competence – User Interface

Develops user interfaces as appropriate to the organisation's development standards and the type of component being developed.

How has your apprentice demonstrated competence in this area? (please give examples)

Yes, as referenced earlier, our business model is based around developing a set product based around core standards which include the user interface and software components. Krystle is competent to deliver within this framework.

Krystle has shown to me that she is able to develop user interfaces that follows our development guidelines. She has made sure to follow our design choice by making sure to use the Bootstrap styling choice.

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Section 3
Behaviours, Business Skills and Level of Responsibility Evaluation

Please provide an evaluation as to the level of responsibility of the apprentice you are providing a reference for using the tables below. Under each heading is a list of proficiencies that a competent apprentice should display.

Proficiency – Business Skills

- **Demonstrates an analytical and systematic approach to issue resolution.**
- **Demonstrates effective communication skills.**
- **Contributes fully to the work of teams.**
- **Appreciates the wider business context, and how their role relates to other roles and to the business of the employer of client.**

How has your apprentice demonstrated competence in these areas? (please give examples)

Demonstrates an analytical and systematic approach to issue resolution:

For me, Krystle has shown that she is able to approach an analytical and systematic approach when solving problems. Krystle has been tasked with developing many functionalities that require analytical and systematic approaches. Krystle has used tools such as Google Developer tools and the Visual Code debugger to test for a solution for the issue. Krystle takes steps to come up with a solution by creating stages that he would use to find a solution.

Demonstrates effective communication skills:

Krystle has shown to me that she is happily able to contribute to our team and when required she has shown me that she can communicate with everyone. She has got in touch every time she needed explanation on anything.

Contributes fully to the work of teams:

Krystle is assigned tasks throughout the day and will need to make sure to complete them within the deadline. Krystle uses Podio to manage her tasks, she will need to view the task and add it to a schedule. Krystle has shown to me that she can plan, schedule and monitor each task. She has shown this by finishing all tasks on time and keeping my clients happy.

Appreciates the wider business context, and how their role relates to other roles and to the business of the employer of client:

Krystle appreciates the wider business context as she is very happy working with what the clients want. When needed, Krystle works with me and helps identify how long certain tasks will take to do.

Proficiency – Complexity

- **Performs a range of work, sometimes complex and non-routine, in a variety of environments.**
- **Applies methodical approaches to issue definition and resolution.**
- **Undertakes all work in accordance with agreed safety, technical and quality standards, using appropriate methods and tools.**

How has your apprentice demonstrated competence in this area? (please give examples)

Performs a range of work, sometimes complex and non-routine, in a variety of environments:

Our clients sometimes request some rather ambiguous features. I know that I can trust Krystle in taking these tasks as she has proven to me that she capable of anything we throw at her. Before Krystle's laptop was upgraded, she had slow one that took a bit of time to use some of the tools such as the debugger and even Photoshop. This created a stressful environment for Krystle as the stuttering were causing interruptions for her. However, with this in mind I saw that Krystle was able to persevere here and finish the task correctly.

Applies methodical approaches to issue definition and resolution:

I have found that Krystle likes to work on more complex tasks that involve the creation of new functionality. She completed this task perfectly and the client was extremely happy with it.

Undertakes all work in accordance with agreed safety, technical and quality standards, using appropriate methods and tools:

Krystle makes sure to give detailed reasoning to what the issue was and how it was completed. She has been able to do this by messaging the me. I had no issue in understanding what Krystle had written and I can tell the client the cause of the issue and resolution with no issue.

NOTE: this box will expand as required

Proficiency – Autonomy

- **Works under general direction.**
- **Determines when issues should be escalated to a higher level.**

How has your apprentice demonstrated competence in this area? (please give examples)

Works under general direction:

Krystle has shown good ability to take on tasks and work autonomously within the parameters set by his managers, able to judge proficiently when to carry on with her own problem solving and at what point makes sense to use the experience and knowledge of others in the work place.

Determines when issues should be escalated to a higher level:

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> Krystle has shown me that she knows who to contact when she thinks the task/issue should be escalated to a higher level. When Krystle began employment here, she struggled with some of the database querying. She knew from the employment contract who to contact when issues like these occur. The person to contact here would be either our senior developer or operations manager, me.
>
> NOTE: this box will expand as required

Proficiency – Influence

- **Has working level contact with customers, suppliers and partners.**

> **How has your apprentice demonstrated competence in this area? (please give examples)**
>
> **Has working level contact with customers, suppliers and partners:**
> The ability to influence greatly the direction of travel for a project is not a core part of Krystle's role and to date she has had little direct contact with the end customer. Her ability to interact with colleagues has been good and with an increasing technical knowledge is able to influence others within the company.
>
> NOTE: this box will expand as required

Overall Impressions and Constructive Feedback

This section is an opportunity for you to provide written feedback outside the rigid competency structure.

It is a free text field to allow you to share general thoughts on the apprentice's performance in case you were unable to say everything you wanted to say using the structured template.

For example, you may want to highlight some of the areas where you have not been able to give the apprentice the exposure they would have liked.

We would welcome any general constructive development advice you may wish to give.

> Krystle has shown herself to be a diligent and adaptable member of the team and keen in participating in group activities. One such example is that Krystle always enjoyed joining playing table games in the office.

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From our reviews I have found that Krystle is very keen on professional development, she seems to always want to further her skills in a subject.

NOTE: this box will expand as required

Please accept our sincere thanks for the support that you have provided to your apprentice.