SQA Professional Developer Award (Level 8) in Software Development

Overview

CodeClan is the first UK digital skills academy to offer a Professional Development Award (PDA) in Software Development . This is a professional level qualification recognised and endorsed by employers across Scotland and accredited by the Scottish Qualifications Authority (SQA).

The qualification is an integrated part of and completed in conjunction with the core course. However, it is not received automatically as part of the core course. To gain the qualification, you are offered the opportunity to opt into being registered for the qualification in the first few weeks of the course. Your instructors and the SQA Co-ordinator will let you know about this in the first week of the course.

The Qualification

This PDA has been designed as a Group Award to enable students to achieve internationally recognised credits as determined by the Scottish Credit and Qualifications Framework (SCQF), the national framework that describes all relevant programmes of learning and qualifications in Scotland.

There are three levels of the Professional Development Award. Currently, CodeClan offers completion of the Level 8 Professional Development Award in Software Development.
The Level 8 is equivalent educational level to an HND/ Diploma of Higher Education and is considered suitable for those with some previous knowledge of computing, eg an HNC, or a graduate level qualification in a non-STEM area.

Entry to the Qualification

Entry to a specified level of the PDA Group Award is at the discretion of CodeClan. Students are normally expected to have attained the skills, knowledge and understanding required to complete the CodeClan core course in order to be put forward for the Award. As such, the course and the qualification compliment each other and students are offered the chance to register for the qualification in the first few weeks of attending CodeClan's core course.

Qualification Structure

The Professional Development Award is made up of three units. These three units are:
- Analysis & Design
- Implementation & Testing
- Project

To achieve the PDA in Software Development, students must complete all three Units with a pass at Level 8. The Group Award specification and Unit Specifications for all levels of the PDA are available on the Student Intranet and on the SQA's website (www.sqa.org.uk).

SCQF

The Scottish Credit and Qualification Framework (SCQF) provides the national framework for describing all relevant programmes of learning and qualifications in Scotland. SCQF terminology is used throughout this overview to refer to credits and levels.

Credit points

Both SCQF and SQA have ways of describing the credits earned in completing a PDA unit. The

SQA defines credits in the PDA units as Higher National Unit (HNU) credits. Each PDA unit is worth 2 HNU credit points which is equivalent to 16 SCQF credit points at that level. Each HNU credit represents approximately 40 hours work, so each PDA unit represents about 80hrs work in total to complete both learning and assessment.

Achieving the Professional Development Award

To see a full overview of the Unit learning outcomes and objectives, please refer to the **Training and Assessment Plan**. This plan outlines the standard assessment timetable and includes details of the specific evidence required in relation to what learning outcomes and objectives that they demonstrate. The learning outcomes and objectives are established by the SQA criteria for the qualification.

Qualification Timetable

The following timetable is for the integrated activities that you can expect as part of the PDA and core course. This is subject to change. If the timetable is changed, students will be notified and an updated timetable will be issued. Any concerns or questions regarding the new timetable can be directed to the instructors or the SQA Co-ordinator.

Wk	Topic	PDA Focus	Activity
1	Module 1: Ruby	Intro to PDA: Software Development	Sign up for Qualification
2	Module 1: Ruby	Next Steps Guidance	Gather evidence from homework
3	Module 1: SQL		Gather evidence from homework
4	Module 1: Sinatra		Gather evidence from homework
5	**Project 1**	PDA Guidance Review of PDA progression	Gather evidence from Assignment 1 Complete Coding Task A
6	Module 2: JavaScript		Gather evidence from homework
7	Module 2: JavaScript		Gather evidence from homework
8	Module 2: JavaScript	Revision materials for Cognitive Tests distributed	Gather evidence from homework
9	**Project 2**	Review of PDA progression	Gather evidence from Assignment 2 Complete Coding Task B
10	**Careers Week**	Review of PDA progression PDA Cognitive Tests	Gather evidence from homework
11	Module 3: Java		Gather evidence from homework
12	Module 3: Java	Completion of Evidence Gathering Review of PDA evidence	Gather evidence from homework
13	Module 3: Java		
14	Module 3: React		
15	**Project 3**		
16	**Consolidation Week**	PDA Deadline	

All work for the qualification should be completed by week 12 of the course, if the evidence gathering checklist in the evidence gathering document has been followed (see below for further information).

Training and Assessment Plan

If you require any adjustments to the established qualification timetable this can be discussed with your SQA co-ordinator. If you have disclosed to CodeClan that you have an additional support need (via the Additional Support Needs Questionnaire) then you are entitled to discuss reasonable adjustments as part of the provision for the qualification. The SQA Co-ordinator and/or your instructors will contact you to discuss this with you at a relevant time.

Registration for the PDA in Software Development

Once you have completed the registration form to opt into registration for the PDA, your instructors or the SQA Co-ordinator will discuss the next steps with you.

Firstly, you will be added to the CodeClan PDA Repo so that you have access to the CodeClan PDA resources and information. A copy of this document is also on the repo. All of the resources and information that you need to successfully complete the Professional Development Award in Software Development is available in this repo. If you require an alternative format (e.g. a printed copy, etc.) please contact a member of CodeClan staff.

Secondly, you will be required to setup a Github repo specifically for the submission of your evidence portfolio and the coding exercises (see breakdown below for further information). This will involve the following steps:
1. Set up a repo for your PDA evidence/work on Github. This is where you will store evidence portfolio and the coding exercises.
2. When setting up the repo, include your name in the title, e.g. fred_smith_PDA. This will allow for easy identification of your work when submitting work for assessment.
3. Submit the URL to your Github repo to CodeClan using the CodeClan 'PDA Evidence Submission' form (https://goo.gl/forms/5crXzMCpngmqEl8s2).
4. Use this repo to store and update evidence collected across the CodeClan core course, 'pushing' your work at regular intervals. This will be monitored by the SQA co-ordinator and cohort instructors to support you where needed.

Please note, if you do not submit your repo URL members of staff will not be able to give feedback or guidance on your work. If you fundamentally alter your repo at any point in the course (i.e. delete the current repo and create a new one), inform the relevant members of staff as soon as possible.

Assessment Work For The Qualification

As previously stated, the qualification is integrated into the core course. The learning completed on the course is used to demonstrate competency in software development at the subject level of the PDA.

The work involved is centred around three vital parts of assessment:
1. Evidence portfolio
2. Coding exercises
3. Cognitive tests

To achieve the qualification, all three of these elements must be completed and a pass mark achieved in each.

1. Evidence portfolio
   - evidence for the portfolio is gathered from weeks 2-12 of the course.
   - the evidence portfolio consists of screenshots and descriptions of evidence taken from work completed on the core course.

- work that is eligible to be used must be work produced by the student. This includes homework, individual lab work, project work or work created specifically for the qualification.
- an evidence gathering document is provided. This document has guidance on how to format the evidence, as well as a timetabled checklist to ensure evidence is gathered at the best times that match the core course.
- the evidence portfolio covers learning outcomes and objectives from all three units.
- the evidence portfolio makes up roughly 80% of the total work amount needed to be completed for the qualification (this does not relate to grading, all elements must be completed achieving a pass grade).
- reviews of the your evidence portfolio will be completed at various points throughout the course, to provide feedback and guidance.

2. Coding exercises
- there are two coding exercises that are provided as weekend homework, to be completed in weeks 5 and 9 of the core course.
- these exercises are designed to be similar to the homework completed as part of the core course and are structured in the same way.
- the first coding exercise is completed in Ruby and focuses on Static and Dynamic Testing.
- the second coding exercise is completed in Javascript and focuses on Unit and Integration testing.
- as previously stated, these exercises are completed as homework and as such are submitted on the Monday after the weekend in the same way as all other course homework.
- the coding exercises make up roughly 10% of the total work amount needed to be completed for the qualification (this does not relate to grading, all elements must be completed achieving a pass grade).

3. Cognitive tests
- the tests are currently completed in week 10 of the core course. This is subject to change and where there is an alteration to the designated schedule, students will be advised ahead of time and allowances will be made to ensure the integrity of the qualification.
- they are designed to demonstrate a candidate's understanding of key concepts involved in Software Development.
- all of the tests must be passed to achieve the Professional Development Award.
- CodeClan currently uses an online learning tool, called Quia, for test assessment. The tests are completed online on the Quia website.
- there are four tests in total: 2 x Analysis and Design unit and 2 x Implementation and Testing unit.
- each test has a time limit of 45 minutes.
- the pass mark for each test is 60%, it is not graded beyond this and is a pass/fail criteria.
- the cognitive tests make up roughly 10% of the total work amount needed to be completed for the qualification (this does not relate to grading, all elements must be completed achieving a pass grade).
- revision materials are provided to assist with the study element required for the cognitive tests. These materials are in the PDA repo and they will be handed out at the relevant point in the course.

Completion and Submission of the PDA in Software Development

Once you have completed all the relevant pieces of work for the qualification, please inform your SQA Co-ordinator or instructors.

The submission deadline for the completion of the qualification is Friday of Week 16 of the course. All relevant pieces of work (as listed above) must be completed and be present in your PDA Github Repo by this date, unless otherwise agreed with the SQA Co-ordinator.

In signing up to the PDA in Software Development, you are agreeing to complete the work required to pass the qualification. If you register for the qualification and you do not complete the

qualification, there is a non-completion administration fee of £50. This is applicable under the following circumstances:

- you choose to withdraw from the qualification after registration.
- you do not complete the qualification within the qualification timeframe.

If an extension is required due to exceptional or unforeseen circumstances, that was not previously agreed upon with the CodeClan team, students can discuss this with the instructors and the PDA co-ordinator. Extensions to the established timetable are given at the discretion of CodeClan.

Assessment of the Professional Development Award

Assessment Overview

CodeClan will provide students on their core course the opportunity to prepare for and undertake appropriate assessment activities in order to achieve the Units leading to the Group Award.

Students will be have an Assessor who will review their progress at regular intervals and facilitate assessment activities. Evidence of achievement will be gathered through work undertaken as part of the learning and teaching, or by scheduled assessments set by the centre at CodeClan's discretion, as outlined above.

Once work has been submitted and the submission deadline has been reached, assessment will occur and should be completed within 2-3 working weeks of the submission deadline. Where this is not achievable, students will be advised.

Where a candidate has been successful in achieving the Professional Development Award in Software Development, they will be notified by CodeClan via email.

Assessment Roles and responsibilities

Candidates are responsible for preparing for their assessment by becoming familiar with the standards, what is to be assessed and how it is to be assessed. As a qualification candidate you should be able to produce examples of your own work, respond to written or oral questions, help to identify sources of your own evidence that meet the standard(s), and receive and act on feedback from the assessor.

Assessors are responsible for guiding students through assessment process and for judging the evidence of each candidate's performance, knowledge and understanding against the units of competence in order to decide whether the candidate has demonstrated competence.

Internal Verifiers are responsible for ensuring that assessments are appropriately conducted and that any possibility of malpractice is minimised. They are responsible for ensuring the validity of internal assessments and the reliability of assessors' judgements.

SQA Co-ordinators are responsible for ensuring that delivery, assessment and verification practices are in line with SQA requirements. They are responsible for communicating these requirements to internal assessors and verifiers.

External Verifiers are responsible for all external verification and qualification approval activities under the conditions, timescales and arrangements set by the SQA. The External Verifier ensures all centres are teaching to the same standards.

Assessment Strategy

A number of different assessment methods are used to assess the Units, these are listed and explained above.

These assessment methods may be subject to change. Where a change is made, students will be advised ahead of time and adjustments made to allow for these changes in the assessment

timetable. These methods of assessment may include but are not limited to: multiple choice/response questions, professional discussion, project work, presentations and e-assessment, as determined by CodeClan.

Projects/assignments/Assessment tasks are set by CodeClan within SQA guidelines. They are based on meaningful tasks, providing appropriate challenge and requiring application of knowledge, understanding and skills as appropriate to that Unit. All assessment tasks must be completed by the candidate working independently (except for specific Outcomes requiring collaboration) and clearly demonstrate significant application of knowledge and skills at the appropriate level. Full instructions for candidates are contained within each assessment task.

Authentication Statement

Students are required to sign an authentication statement confirming that all work that is submitted is their own. A member of CodeClan staff will contact you to confirm this and provide the relevant paperwork.