The Mandatory Unit - Level 2, Unit 1 - Improving Productivity Using IT (4 credits)

1. Plan, select and use appropriate IT systems and software to meet needs	2. Review and adapt the ongoing use of IT tools and systems to make sure that activities are successful	3. Develop and test solutions to improve the ongoing use of IT tools and systems
1.1 I can demonstrate the effectiveness in using productivity tools in development projects	**2.1** I can review the on-going use of productivity tools and techniques and change the approach as needed	**3.1** I can review the benefits and drawbacks of productivity tools and systems used in terms of output and efficiency
1.2 I can develop digital products using the methods, skills and resources required to complete tasks successfully	**2.2** I can describe whether the productivity tools selected were appropriate for the task and purpose.	**3.2** I can describe ways to improve productivity and efficiency in development
1.3 I can plan how to carry out tasks using productivity tools to achieve the required purpose and outcome	**2.3** I can assess the strengths and weaknesses in my final work	**3.3** I can develop a workflow to improve my own productivity in development
1.4 I can demonstrate risk management to avoid factors that might affect the task.	**2.4** I can describe ways to make further improvements to my work	**3.4** I can test solutions to check that they work as intended
1.5 I can select and use productivity services to complete planned tasks and produce effective results.	**2.5** I can review outcomes to make sure they match requirements and are fit for purpose	

Level 2 Unit 2: Fundamentals of Coding and Development (4 credits)

1. Setup and work with a professional development environment	2. Understand algorithms and key features of coding	3. Implementing Object-Oriented Programming	4. Implementing a professional workflow with best practice
1.1 I can use command-line interface to navigate through systems	**2.1** I can use common coding structures and features	**3.1** I can describe what object-oriented programming is	**4.1** I can understand what is meant by source control
1.2 I can configure a development environment	**2.2** I can demonstrate complex algorithms.	**3.2** I can use classes and objects to structure new applications	**4.2** I can demonstrate ability to use a version control platform
1.3 I can install development tools	**2.3** I describe the difference between compiled and interpreted code	**3.3** I can develop apps using object-oriented programming	**4.3** I can create documentation for your code solutions
1.4 I can integrate external tools into a workflow	**2.4** I can explain the relationship between data and methods in code	**3.4** I can explain key principles of OOP; encapsulation, abstraction, polymorphism and inheritance	**4.4** I can modify development environment settings for a personalised experience
1.5 I can describe the usefulness of extensions in a modern development environment.	**2.5** I can understand common technical design principles	**3.5** I can create a program design using UML	**4.5** I can take part in a code review and project retrospective

Level 2 Unit 3: Developing Mobile Apps (4 credits)

1. Understanding the principles of mobile app development	2. Developing apps for mobile devices and platforms	3. Exploring the features available in a mobile SDK	4. Developing Mobile Apps Project
1.1 I can describe difference between native apps, cross-platform apps and progressive websites	**2.1** I can explore architecture of a modern mobile app	**3.1** I can describe typical features in a mobile SDK	**4.1** I can create a technical design for a given scenario
1.2 I can work with a software development kit	**2.2** I can use a programming language with a mobile framework	**3.2** I can implement two SDK features in an app	**4.2** I can utilise professional practice including source control and documentation
1.3 I can set up environment to include the tools needed to develop for a mobile platform	**2.3** I describe launch a demo app in a mobile device emulator or simulator	**3.3** I can develop a user interface with code	**4.3** I can develop a mobile app that spans across different screen sizes on the chosen platform
1.4 I can understand the mobile ecosystem	**2.4** I can create an app that takes advantage of key features of a mobile platform	**3.4** I can compare features of a native development SDK and a cross-platform SDK	**4.4** I can describe the importance of testing of a mobile app before launching it
1.5 I can describe demonstrate awareness of scope of mobile devices.	**2.5** I can deploy app to a mobile device	**3.5** I can utilise plugins in mobile apps	**4.5** I can explore how apps are deployed onto the iOS App Store and Google Play

Level 2 Unit 4: Creating Connected Apps (4 credits)

1. Architecture of Internet-enabled apps	2. Create an Internet-connected app	3. Implementing cloud-services into apps	4. Creating Connected Apps Project
1.1 I can describe the possibilities and opportunities of Internet-connected apps	**2.1** I can create a location-tracking app using the SDK or plugin	**3.1** I can describe what is meant by cloud services	**4.1** I can develop an Internet-connected mobile app for a provided scenario
1.2 I can explore how back-end and server-side applications are developed	**2.2** I can describe what an API is used for	**3.2** I can use a cloud service platform like Firebase to power a mobile app	**4.2** I can implement effective professional practice techniques during development
1.3 I can identify features of an SDK that rely on the Internet to function	**2.3** I describe create an app that uses an external API to provide data	**3.3** I can implement push notifications into an app	**4.3** I can produce documented, efficient code
			4.4 I can deliver a presentation highlighting the development process