Guidance notes for completion:

1. The curriculum map is designed to reference where the both apprenticeship standards and course learning outcomes are developed, taught and assessed.

2. Areas of competence refer to detail within the apprenticeship standards. They are not consistently included in all standards, and only needs completing where applicable.

3. All knowledge, skills and behaviours (KSB's) should be entered into the map (insert rows where required).

4. Course learning outcomes should be referenced against the KSB's. The references need to match the LO's within the course specification, eg. Knowledge and Understanding learning outcome 1, (KU1)

5. For the apprenticeship, there may be standards and learning outcomes which are developed in the workplace. These are referenced (D) in the map. There may also be opportunities where standards and learning outcomes are assessed in the workplace following development, these are referenced (DA). Taught outcomes are reference (T) and taught and assessed (TA).

| Apprenticeship title AND qualification | | | Modules | | | | | | | | | |
|--|---|----------------------|--------------|---------------|------------|----------|--------------|----------------|--------------------------|-----------------|---------------|--------------|
| | NOTTINGHAM TRENT UNIVERSITY NTU Higher Technical Qualification Development Level 4 Certificate in Higher Education Software Developer KSB Mapping Document | | State Deside | Prof Industry | Foundation | Fourtect | Esential web | 50°5411 NUT 00 | al production of the set | Congrost anning | Neppopoliting | » |
| | | Modul e levels | L4 | L4 | L4 | L4 | L4 | L4 | L4 | L4 | | |
| Areas of | Knowledge Outcomes | | | | | | | | | | | 1 |
| competence | K1: all stages of the software development life cycle (what each | | | | | | | | | | | - - |
| | stage contains, including the inputs and outputs) | | X | x | X | | | | | X | | |
| | K2: roles and responsibilities within the software development lifecycle (who is responsible for what) | | x | x | x | | | | | x | | full |
| | K3: the roles and responsibilities of the project life cycle within | | | | | | | | | | | not |
| | your organisation, and your role K4: how best to communicate using the different communication | | | | | | | | | | | - |
| | methods and how to adapt appropriately to different audiences | | | x | | | x | | | x | x | full |
| | K5: the similarities and differences between different software | | x | x | | | | | | | | full |
| | K6: how teams work effectively to produce software and how to | | × | × | × | | | | | ~ | | - 6.11 |
| | contribute appropriately | | ~ | ~ | * | | | | | * | | |
| | solutions to commonly occurring problems | | x | | | | x | | | | | full |
| | K8: organisational policies and procedures relating to the tasks | | | V | | | | | | | | partial |
| | storage and treatment of GDPR sensitive data. | | | x | | | | | | | | |
| | K9: principles of algorithms, logic and data structures relevant to | | | | | | | | | | |] |
| | soπware development for example: • Arrays • Stacks • Queues • Linked Lists • Trees • Graphs • Hash Tables • Sorting Algorithms • | | | | V | | | | | V | | 6.11 |
| | Searching Algorithms • Critical sections and race conditions. | | | | X | | | | | X | X | |
| | | | | | | | | | | | | |
| | K10: principles and uses of relational and non-relational databases | | x | | × | | | | | × | × | full full |
| | K12: software testing frameworks and methodologies | | x | | ^ | | x | | | × × | x | full |
| Areas of | Skills Outcomes | | | | | | | | | | | 1 |
| competence | S1: create logical and maintainable codes | | | | × | | X | | | x | × | full |
| | S2: develop effective user interfaces | | | | | | x | | | x | x | full |
| | S3: link code to data sets | - | | | x | | | | | x | x | full |
| | testing | - | | | | | | | | x | | full |
| | S5: conduct a range of test types, such as Integration, System, | | | | × | | x | | | | × | partial |
| | S6: identify and create test scenarios | | | | x | | x | | | x | x | full |
| | S7: apply structured techniques to problem solving, can debug | | | | | | | | | Y. | | 6 .11 |
| | and resolve issues | | | | X | | X | | | X | X | |
| | S8: create simple software designs to effectively communicate | | | | x | | | | | x | x | full |
| | S9: create analysis artefacts, such as use cases and/or user stories | ; | x | | | | | | | | | full |
| | S10: build, manage and deploy code into the relevant environment | t | | | x | | x | | | x | | partial |
| | Sill: apply an appropriate software development approach according to the relevant paradiam (for example object oriented. | | x | | | | | | | x | x | full |
| | event driven or procedural) | | | | | | | | | | | |
| | S12: follow software designs and functional/technical S13: follow testing frameworks and methodologies | | | | X | | × | | | X | Y | tull full |
| | S14: follow company, team or client approaches to continuous | | | | 1 | 1 | | 1 | | | ^ | nartial |
| | integration, version and source control | | | | | | | | | | | |
| | non-technical stakeholders | | | | х | | x | | | x | x | full |
| | S16: apply algorithms, logic and data structures | | | | | | | | | Х | х | full |
| | compliant with security and maintainability requirements | | | | | | | | | | | partial |
| Areas of | Behaviour Outcomes | | | | | | | | | | | |
| competence | B1: Works independently and takes responsibility. For example. | | | | | | | | | | | 1 |
| | has a disciplined and responsible approach to risk, and stays motivated and committed when facing challenges | | x | x | x | x | x | × | × | x | x | full |
| | reasoning when making decisions related to undertaking work instructions | | x | | x | × | | × | | x | x | partial |
| | B3: Maintains a productive, professional and secure working environment | | | | | | x | | | | | partial |
| | roles, internally and externally, with a positive attitude to inclusion & diversity | 1 | x | x | | | x | | | | | partial |
| | B5: Acts with integrity with respect to ethical, legal and regulatory ensuring the protection of personal data, safety and security. | | | | | | | | | | | partial |

| Apprenticeship title AND qualification | Modules | | | | | | | | | |
|--|------------------|--------------|------------------|---------------|--------------|----------------|------------------|--|----------------|---------|
| NOTTINGHAM TRENT UNIVERSITY NTU Higher Technical Qualification Development Level 4 Certificate in Higher Education Software Developer KSB Mapping Document | Sterry signature | Pro Transfer | ton of the state | Loure Content | Esertial web | 45 CHILL WORKS | A FERENCE STREET | Comprost on the Company of the Comprost of the Company of the Comp | Neb profesting | , |
| B6: Shows initiative for solving problems within their own remit, being resourceful when faced with a problem to solve. | x | x | x | x | x | x | x | x | x | full |
| B7: Communicates effectively in a variety of situations to both a technical and non-technical audience. | x | x | x | | x | | x | x | x | full |
| B8: Shows curiosity to the business context in which the solution will be used, displaying an inquisitive approach to solving the problem. This includes the curiosity to explore new opportunities, and techniques; the tenacity to improve methods and maximise performance of the solution; and creativity in their approach to solutions. | | | x | | | | | x | | partial |
| B9: Demonstrates creativity and tenacity in their approach to solutions and the methods used to come to a solution for example, sees the task through to the end by devising new solutions and despite obstacles and problems along the way. | x | × | × | × | x | x | x | x | x | full |
| B10: Committed to continued professional development. | | х | | | x | | | | | full |