## AS91907- Use complex processes to develop a digital technologies outcome

**Credits:** 6 (internal)

**NZQA:**  <https://www.nzqa.govt.nz/nqfdocs/ncea-resource/achievements/2019/as91907.pdf>

| **Achieved** | **Evidence** | ✔ |
| --- | --- | --- |
| using recognised and appropriate project management tools and techniques to plan the development of a digital technologies outcome |  |  |
| decomposing the digital technologies outcome into smaller components |  |  |
| trialling the components of the outcome |  |  |
| testing that the digital technologies outcome functions as intended |  |  |
| addressing relevant implications. |  |  |
| **Merit** |  |  |
| effectively using project management tools and techniques to manage development, feedback and/or collaborative processes |  |  |
| effectively trialling multiple components and/or techniques |  |  |
| effectively using information from testing and trialling to improve the functionality of the digital technologies outcome. |  |  |
| **Excellence** |  |  |
| synthesising information gained from the planning, testing and trialling of components |  |  |
| discussing how this information led to the development of a high-quality digital technologies outcome. |  |  |

## AS91906 - Use complex programming techniques to develop a computer program

**Credits:** 6 (Internal)

**NZQA:**  <https://www.nzqa.govt.nz/nqfdocs/ncea-resource/achievements/2019/as91906.pdf>

| **Achieved** | **Evidence** |  |
| --- | --- | --- |
| writing code for a program that performs a specified task |  |  |
| using complex techniques in a suitable programming language |  |  |
| setting out the program code clearly and documenting the program with comments |  |  |
| testing and debugging the program to ensure that it works on a sample of expected cases. |  |  |
| **Merit** |  |  |
| documenting the program with appropriate names and organised comments that describe code function and behaviour |  |  |
| following conventions for the chosen programming language |  |  |
| testing and debugging the program effectively to ensure that it works on a sample of both expected cases and relevant boundary cases. |  |  |
| **Excellence** |  |  |
| ensuring that the program is a well-structured, logical response to the specified task |  |  |
| making the program flexible and robust |  |  |
| comprehensively testing and debugging the program. |  |  |

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## AS91902- Use complex techniques to develop a database

**Credits:** 4 (internal)

**NZQA:**  <https://www.nzqa.govt.nz/nqfdocs/ncea-resource/achievements/2019/as91902.pdf>

| **Achieved- develop a database** | **Evidence** | ✔ |
| --- | --- | --- |
| designing the structure of the data |  |  |
| using appropriate tools and advanced techniques to organise, query and present data for a purpose and end users |  |  |
| applying appropriate data integrity and testing procedures |  |  |
| addressing relevant implications. |  |  |
| **Merit- Develop and informed database** |  |  |
| using information from testing procedures to improve the quality of the outcome |  |  |
| structuring, organising and querying the data logically |  |  |
| **Excellence- develop a refined database** |  |  |
| iterative improvement throughout the design, development and testing process |  |  |
| using efficient tools and techniques in the outcome’s production |  |  |
| presenting the data effectively for the purpose and end users. |  |  |

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## AS91903 - Use complex techniques to develop a digital media outcome

**Credits:** 4 (Internal)

**NZQA:**  <https://www.nzqa.govt.nz/nqfdocs/ncea-resource/achievements/2019/as91903.pdf>

| **Achieved** | **Evidence** |  |
| --- | --- | --- |
| applying appropriate tools and techniques to meet the purpose and end users requirements |  |  |
| applying appropriate data integrity and testing procedures |  |  |
| Applying user experience principles relevant to the purpose of the outcome |  |  |
| addressing relevant implications. |  |  |
| **Merit** |  |  |
| using information from testing procedures to improve the quality of the outcome |  |  |
| applying user experience principles to improve the quality of the digital media outcome. |  |  |
| **Excellence** |  |  |
| iterative improvement throughout the design, development and testing process to produce a high-quality outcome |  |  |
| using efficient tools and techniques in the outcome’s production. |  |  |

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