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| Student Name |  | | | | Student Number | |  | |
| Unit Code/s & Name/s | ICTPRG501 Apply advanced object-oriented language skills | | | | | | | |
| Assessment Type | Portfolio of Evidence | | | | | | | |
| Assessment Name | Programming Assignment | | | | Assessment Task No. | | AT1 | |
| Assessment Due Date | 30 / 11 / 2018 | | | | Date submitted | |  | |
| **Assessor Feedback:**  **Student provided with feedback** *(check box when completed)* | | | | | | | | |
| **Attempt 1** | | Satisfactory | | Unsatisfactory | | Date | | / / |
| **Attempt 2** | | Satisfactory | | Unsatisfactory | | Date | | / / |
| Assessor Name |  | | Assessor Signature | | |  | | |
| Note to assessor: Please record below any reasonable adjustment that has occurred during this assessment e.g. written assessment given orally. | | | | | | | | |
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| Assessment criteria / benchmarks  **The evidence submitted demonstrates that the student satisfactorily:** | Attempt 1 | | Attempt 2 | |
| S | U | S | U |
| 1. Create and sent an email to the Project Manager to obtain the **program specifications, programming guidelines** and gather other requirements and review the document in preparation for the development of the project. |  |  |  |  |
| 1. Prepared a technical report for the development of the applications that includes the following:   Explanation of mechanism use for inter-process communication  Explanation of Interface in OO programming and how to apply it for multiple inheritances |  |  |  |  |
| 1. Built and tested a **simple client (web) application** using **Java** based on the supplied program specifications and gathered requirements and making use of the following:   Write **codes following** the **standards** and **conventions** **outlined** in the **programming guidelines** with **block** **comments** to user-defined methods  **Web GUI components** such as web forms, buttons, labels, data grids etc.  Create **Help files** using **GUI components**  Subscribe to or consume the web service to **establish** **communication** and **data transfer** |  |  |  |  |
| 1. Built and tested a simple server application (web service) based on the supplied program specifications and gathered requirements to **implement remote procedure call (RPC)** based on **multiple** **inheritances** using **Java** and making use of the following:   Write **codes following** the **standards** and **conventions** **outlined** in the **programming guidelines** with **block** **comments** to user-defined methods  Developed operation contracts to handle database operations  Developed data contracts to allow transfer of data  Nested classes |  |  |  |  |
| 1. Demonstrated programming skills by developing application with the following features:   **Drag and drop**  **2-D graphics** |  |  |  |  |
| 1. Used **debugging tools** including **trace** and **watches** to debug code to ensure syntax and logic errors are identified and complies with program specification and document errors in the Defect Log |  |  |  |  |
| 1. Create and prepared **test data** to **confirm code meets design** **specifications** |  |  |  |  |
| 1. Performed the test and prepared a **test summary report** and included in the technical report |  |  |  |  |
| 1. **Presented** the **technical report** to the project manager for **sign-off** |  |  |  |  |
| **Evidence of the student having demonstrating consistent performance:** |  |  |  |  |
| Develop client-server applications using an object-oriented language |  |  |  |  |
| Produce a graphical user interface (GUI) |  |  |  |  |
| Build, debug and test the applications |  |  |  |  |
| Produce documentation for the applications |  |  |  |  |
| Uses logical structure and layout, vocabulary, grammar and text conventions suited to the audience. |  |  |  |  |

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| **The student has demonstrated competency in:** |  |  |  |  |
| Task skills - performing every task in the assessment at an appropriate skill level |  |  |  |  |
| Task management skills - managing the various tasks in this assessment at an appropriate skill level, and within a working environment that replicates a workplace appropriate for software development. |  |  |  |  |
| Contingency management skills - managing issues that arise at an appropriate skill level particularly in debugging the applications, and within a working environment that replicates a workplace appropriate for software development. |  |  |  |  |
| Job role environment skills – operating and interacting appropriately and effectively within a working environment that replicates a workplace appropriate for software development. |  |  |  |  |
| **Note:** These checklist items are based on additional Critical Evidence, Required Skill and Required Knowledge not explicitly stated elsewhere in the assignment requirements checklists. |  |  |  |  |