

# Assessment Marking Criteria

## Portfolio

ICTPRG547\_AT2\_PE\_MC\_TQM\_V1.docx



<b>Student Name</b>		<b>Student Number</b>					
<b>Unit Code/s &amp; Name/s</b>	ICTPRG547 Apply advanced programming skills in another language						
<b>Cluster Name</b> <i>If applicable</i>	N/A						
<b>Assessment Type</b>	<input type="checkbox"/> Assignment <input type="checkbox"/> Project <input type="checkbox"/> Case Study <input checked="" type="checkbox"/> Portfolio <input type="checkbox"/> Exam <input type="checkbox"/> Third Party Report (Workplace) <input type="checkbox"/> Third Party Report (Peer)						
<b>Assessment Name</b>	Java - Programming Portfolio of Evidence	<b>Assessment Task No.</b>	2 of 2				
<b>Assessment Due Date</b>	Week 16	<b>Date Submitted</b>	/ /				
<b>Assessor Feedback:</b>							
<table border="1" style="width:100%"> <tr> <td style="width:30%"><b>Attempt 1</b></td> <td style="width:30%">Satisfactory <input type="checkbox"/>   Unsuccessful <input type="checkbox"/></td> <td style="width:20%"><b>Date</b></td> <td style="width:20%">/ /</td> </tr> </table>				<b>Attempt 1</b>	Satisfactory <input type="checkbox"/> Unsuccessful <input type="checkbox"/>	<b>Date</b>	/ /
<b>Attempt 1</b>	Satisfactory <input type="checkbox"/> Unsuccessful <input type="checkbox"/>	<b>Date</b>	/ /				
<b>Assessor Name</b>		<b>Assessor Signature</b>					
<input type="checkbox"/> <b>Student provided with feedback and reassessment arrangements</b> <i>(check box when completed)</i>		<b>Date scheduled for reassessment</b>	/ /				
<table border="1" style="width:100%"> <tr> <td style="width:30%"><b>Attempt 2</b></td> <td style="width:30%">Satisfactory <input type="checkbox"/>   Unsuccessful <input type="checkbox"/></td> <td style="width:20%"><b>Date</b></td> <td style="width:20%">/ /</td> </tr> </table>				<b>Attempt 2</b>	Satisfactory <input type="checkbox"/> Unsuccessful <input type="checkbox"/>	<b>Date</b>	/ /
<b>Attempt 2</b>	Satisfactory <input type="checkbox"/> Unsuccessful <input type="checkbox"/>	<b>Date</b>	/ /				
<b>Assessor Name</b>		<b>Assessor Signature</b>					
<b>Note to Assessor: Please record below any reasonable adjustment that has occurred during this assessment e.g. written assessment given orally.</b>							

Assessment Criteria / Benchmarks		Attempt 1		Attempt 2	
<i>The evidence submitted demonstrates that the student has satisfactorily:</i>		Date __/__/__		Date __/__/__	
		Y	N	Y	N
<b>PART 1. Environment setup</b>					
1.1	Evidence that the requirements and documentation have been reviewed and articulated in email to Project Manager request requirements confirmation and in a meeting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.2	Evidence of the review of the current <i>CD Archive Prototype</i> records from the <i>CD_ArchivePrototype_SampleData.txt</i> data file in 1.3 documentation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3	External documentation template has been used – in line with the development team's programming standards and the following application design sections have been completed: a) IPO chart b) TOE chart c) DFD d) Standard algorithms – using pseudocode e) Class diagram/s	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<b>PART 2. Build the application – Code the solution</b>					
2.1	Evidence of appropriate selection and use of an efficient user-defined data structures to code the functionality outlined in the <i>Scenario Script and Requirements</i> section on the previous pages. Evidence that the algorithms created in 1.3 have been followed and adhere to the Uptown IT code standards.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a)	Evidence of the appropriate implementation of a complex data structure to store the sample client data that the program reads in.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	Evidence of the appropriate implementation of a facility for the program operator to search for a record in this complex data structure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	Evidence of the appropriate implementation of a facility to display the data read in – both as a list and as an individual record.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d)	Evidence of the appropriate implementation of three (3) sort methods that visibly manipulate portions of the data read in. These have been fully coded, and not utilise pre-defined sort functionality available within the programming language or associated IDE.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e)	Evidence of the appropriate implementation of a Doubly Linked List facility, as required by the specification and with appropriate search functionality.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f)	Evidence of the appropriate implementation of a Binary Tree facility, as	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

required by the specification and with appropriate search functionality					
g)	Evidence of the appropriate implementation of an output table demonstrating the application of hashing techniques.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h)	Evidence of the appropriate implementation of inter-process communication between the components of the system being developed, as outlined within the scenario.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i)	Evidence of the appropriate implementation of an applicable programmed response to an operating system signal.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j)	Evidence of the appropriate implementation of the identification and utilisation of a relevant third-party library. Applicable documentation associated with the third-party library has been noted and emailed to the project manager and client.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k)	Evidence of the appropriate completion of unit testing utilising the IDE's debugging facilities in the ensuring the correct operation of the initial development code. Checking for syntactical, logical and design error.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l)	Evidence of the appropriate implementation discussion re concerns and/or points of clarification with the project manager as the project proceeds. Reference to these have been made and to the feedback provided, in your closing email to the project manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>PART 3. Program documentation</b>					
3.1	Prepared appropriate internal documentation in the form of in-line comments in the code. Your code should follow your development team's <b>programming standards</b> .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.2	External documentation template has been used - line with the development team's <b>programming standards</b> and the following sections have been completed: <ul style="list-style-type: none"> <li>• Test plan</li> <li>• Test cases report (file: ICTPRG543_Test_Cases_Report_Template.docx)</li> <li>• User Manual</li> <li>• Evidence of correspondence (email to Project Manager)</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3	In relation to the review of the debugging and test procedures outlined in the development team's coding standards ( <i>UptownIT_Java_Coding_Standards_Template.docx</i> ), adjustments have been noted and added to the closing email to the manager as/where applicable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.4	Prepared automated program <b>documentation</b> using a facility provided within the IDE (e.g. Javadoc) or an alternative.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>PART 4. Debugging and testing</b>					
4.1	Provided evidence of use of debugging facilities available within the Integrated Development Environment (IDE) you are utilising.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Checking for syntactical, logical and design error. Screenshots included in the external documentation template. Showing at least: <ul style="list-style-type: none"> <li>one breakpoint</li> <li>a set of associated watches</li> <li>an instance of tracing through several lines of code</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2	Evidence that the Test Plan has been carried out, and results have been documented in the Test Cases Report (file: UptownIT_Test_Cases_Report_Template.docx)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.3	Evidence that two (2) code optimisation techniques have been researched and applied.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.4	Application updated so as to resolve any errors, issues, optimisation adjustments, or oversights in relation to the original requirements specification, which may have been noted during your testing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.5	Prepared a supporting user manual appropriately considered and structured Included in the <b>external</b> documentation template.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.6	Prepared <b>emails</b> to your Project Manager and separately for your client regarding the details of the <b>third party library</b> utilised within the application.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.7	Prepared closing email to the client regarding the completion of the development.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.8	Prepared closing email to Project Manager regarding the completion of the development, identifications of any areas of concern and seeking approval.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.9	Code and documentation uploaded for signoff.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>PART 5. Contingency and advanced programming concepts</b>					
5.1	Contingency task.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.2	Justification provided for the use of Doubly Linked List of Objects.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.3	Most appropriate data structure for the storage of an index and its associated index value proposed and explained.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.4	Outlined four (4) conditions that the subsequent selection of a sort algorithm in a specific situation may depend on if Quick Sort cannot be utilised.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.5	Identified and explained two (2) advantages of using a hashing technique.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.6	One of the programming concepts that can be utilised in both inter-process communication and operating system signals is Threads. Analysis and justification provided for the use of Threads.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>End of Marking Criteria</b>					