

**SWE30003 – 2024**  
**Software Architectures and Design**  
**Assignment 2 – worth 25 marks**

Tutorial day and time:

Group/team name:

Area	Elements	Breakdown (in %)	Actual mark
Executive Summary, Introduction	Overview of the document, summary or problem to be addressed, outlook of solution to be taken etc.	5	
Assumptions	What assumptions are made? Are they realistic and within the given constraints? Are they described in enough detail?	5	
Evidence of Problem Analysis	<ul style="list-style-type: none"> <li>Does submission illustrate some form of problem analysis?</li> <li>Brief discussion of “simplifications” made during analysis</li> </ul>	5	
Overview of Candidate Classes	<ul style="list-style-type: none"> <li>Full list of candidate classes contained in design solution</li> <li>UML-type class diagram (or similar notation) highlighting the relationships between the candidate classes <ul style="list-style-type: none"> <li>deduct up to 5 marks if full method signatures (or the-like) are used.</li> </ul> </li> <li>Must include a brief justification of the chosen classes and why other candidate classes were discarded (if applicable)</li> </ul> <p>Up to 15 marks for classes and overview; 5 marks for justification.</p>	20	
CRC Cards of Candidate Classes	<p>For each of the classes given in “Overview”, a CRC card with the following must be given:</p> <ul style="list-style-type: none"> <li>Class name, and parent class (if applicable)</li> <li>Brief description of this class</li> <li>List of responsibilities plus all their collaborators</li> </ul> <p>Deduct 4 marks per missing class, 1 mark per item of CRC</p>	20	
Quality of Design Solution	<ul style="list-style-type: none"> <li>Are all necessary responsibilities of the <i>system</i> covered?</li> <li>Are the responsibilities described consistently and precisely?</li> <li>Are the responsibilities “evenly” distributed or are “god” classes present?</li> <li>Use of design heuristics made explicit (if applicable)?</li> <li>Use of Design Patterns made explicit (if applicable)?</li> </ul>	15	
Illustration of Bootstrap process	<ul style="list-style-type: none"> <li>Illustration of which class(es) create instances of other class(es) and in which order</li> <li>Deduct marks if undefined classes are used for the process.</li> </ul>	5	
Basic Verification of given solution	<ul style="list-style-type: none"> <li>Must contain at least four non-trivial use scenarios of the system and how the design solution covers these scenarios <ul style="list-style-type: none"> <li>Illustration using UML sequence diagrams (or similar)</li> </ul> </li> </ul>	20	
Coherent Document	<ul style="list-style-type: none"> <li>Document has a suitable overall structure</li> <li>Clarity and consistency of the various parts of the document.</li> <li>Title page, Table of Content, Section, Page numbering etc.</li> <li>Use of English, <b>diagrams with legends/notations used</b>, etc.</li> <li>Pitched at appropriate audience?</li> </ul>	5	
Meeting the requirements of the assignment specification	<ul style="list-style-type: none"> <li>Only electronic submission is required</li> <li>Assignment 1 submission attached as appendix (otherwise, penalty up to 5 marks)</li> <li>Cover sheet signed (otherwise, penalty up to 5)</li> <li>Work sheet (contribution document) completed and signed (otherwise, penalty up to 10)</li> <li>Others</li> </ul>	-xx	
Total		100	