

**Software Engineering with Objects and Components 1**  
**Group Tutorial Project: Deliverable 1**  
*Marking Scheme*

**Part 1 - Team Information**

<b>Tutorial Group (T01-T07)</b>		<b>Tutor's Name</b>	
<b>Tutorial Group's Name</b>		<b>Team: S, P or A</b>	
<b>Team Members</b>			

**Part 2 - Deliverable Marking Scheme**

<b>Deliverable Marking Scheme</b>		
<b>Deliverable Part</b>	<b>Questions</b>	<b>Marks</b>
<b>Requirements</b>	<b>Q1.</b> Did you organise/collect the system requirements by using a Requirements Specification template (e.g., Volere)?	[ / 3]
<b>Marks Limit: [10/100]</b>	<b>Q2.</b> Did you distinguish different types of requirements (e.g., functional or non-functional)?	[ / 3]
	<b>Q3.</b> Do you believe you got most of the system requirements (requirements completeness)?	[ / 2]
	<b>Q4.</b> Have you identified/resolved conflicting requirements (requirements correctness)?	[ / 2]
	<b>Use Cases</b>	<b>Q5.</b> Did you graphically represent the functional requirements by Use Cases?
<b>Marks Limit: [35/100]</b>	<b>Q6.</b> Did you refine the use cases by generalization or extension?	[ / 10]
	<b>Q7.</b> Did you use a template for organising/collecting the use cases?	[ / 10]
	<b>Class Diagrams</b>	<b>Q8.</b> Does your class diagram identify the main classes of the system?
<b>Marks Limit: [35/100]</b>	<b>Q9.</b> Did you specify Attributes and Operations for each class?	[ / 10]
	<b>Q10.</b> Did you identify Associations, Generalizations, Aggregations and Compositions?	[ / 10]
	<b>CRC Cards</b>	<b>Q11.</b> Did you construct CRC cards for your system design?
<b>Marks Limit: [20/100]</b>	<b>Q12.</b> Did you verify your Class Diagrams? Did you play any use case with the CRC Cards in order to verify your class diagram?	[ / 10]
	<b>Deliverable Mark</b>	

### Part 3 - Individual Marking Scheme

Individual Marking Scheme							
Team Member	Estimated Contribution (tick one box only)				Individual Mark		
	0%	≈ 25%	50%	> 50%	Basic	Bonus	Total (Basic + Bonus )

# Deliverable 1 Marking Scheme - Instructions

This form is to be used by your team to assess your deliverable 1 and to distribute the mark among your team's individual members. Please complete and return the form together with your deliverable 1. This form is in three parts.

**Part 1 - Team Information.** The first part records your team's details. Please fill in the table in the Part 1 with the relevant information.

**Part 2 - Deliverable Marking Scheme.** The second part provides you a marking scheme for your deliverable 1. Your deliverable 1 should consist of four different parts: *Requirements*, *Use Cases*, *Class Diagrams* and *CRC Cards*. The Deliverable Marking Scheme in Part 2 shows the maximum mark allocated to each part. You have to assess each part of your deliverable 1. The table provides relevant questions that structure your assessment process. You should assign (part of) the allocated marks for each question. The marks depend on the quality of your work. You should justify your mark assignment by answering the question in a separate sheet. The **Deliverable Mark** is the sum of the marks of each part.

**Part 3 - Individual Marking Scheme.** The third part records your team's distribution of the mark among individual team members. The final mark for an individual is the sum of two parts: the basic mark and the bonus. Bonus marks are only available to individuals who contributed  $> 50\%$  of the effort for the deliverable. Basic marks are calculated by a fixed calculation. Bonus marks are to be determined **democratically** by the team.

**Basic Mark:** The basic mark for each individual is equal to the **Deliverable Mark** (in percentage) divided by their **estimated contribution**, up to a maximum of half (50%) of the deliverable mark. For example, if your team's deliverable mark is 68%, the basic mark for an individual who contributed 0% is 0; for an individual who contributed  $\approx 25\%$  is 17 (25% of 68) and for an individual who contributed **either 50% or  $> 50\%$**  the basic mark is 34 (50% of 68).

**Bonus Mark:** Let  $X$  be the number of individuals in your team who contributed  $> 50\%$ . The **total bonus mark** available for distribution =  $X * (\text{Deliverable Mark} / 2)$ . Your team should decide, democratically and - preferably - amicably, how this total mark is to be divided amongst those individuals who contributed  $> 50\%$ . For example, if 3 team members contributed  $> 50\%$  and the deliverable mark is 68%, then the total bonus mark =  $3 * (68 / 2) = 102$ . The team may decide to distribute the bonus marks equally (i.e., 34 marks each), or in any other way they see fit - depending upon how they view the relative contribution of the individuals in question (e.g. 30-30-42, or 22-40-40,...). The final mark for each individual is equal to the sum of the basic and bonus marks. Note that (i) no final mark of greater than 100% will be accepted; and (ii) the sum of the individual bonus marks must equal the total bonus mark (and yes, this will be checked).