Description of the Assessment

1. **Type of assessment**

The coursework for WBCS017-10 Software Engineering is based on **group work**: the deliverables must be handed in as a group, and in consultation with the allocated Teaching Assistant (TA), by or before the deadline.

At the beginning of the first teaching block, the groups will receive the description of a software project provided by an industrial partner: their task will be to develop the software features necessary to implement the project. The initial task of the groups will be to connect with the client, and negotiate a set of requirements that will form the basis of the deliverables.

The deliverables to be handed in comprise both **source code** and various parts of **documentation**. Deliverables are due at the end of both block I and block II, as follows (dates to be confirmed):

ID	Description	block I	block II
D1	Describe, justify and contextualise the requirements of the system	✔	✔
D2	Produce the design documentation for the system	✔	✔
D3	Source code for Minimum Viable Product (MVP) and demo (block I)	✔	
D4	Final demo of the system and presentation of work (block II)		✔
D5	Source code for release candidate		✔
D6	Testing + Traceability Matrix		✔

2. **Deliverables**

- *D1 - Describe, justify and contextualise the requirements of the system:* the group must provide a list of requirements as discussed with the client, and classify each with priority, categorisation, unique ID, rationale and a description of where it fits in the overall architecture. This deliverable is due in both block I and II: It is expected that the group reflects on the feedback gathered in the first block, and implements the changes as needed for the deliverable of block II.
- *D2 - Produce the design documentation for the system:* the group must provide the architecture diagrams of the components and connectors of the system under development. Diagrams should follow a standard notation (i.e., UML) and detail both the attributes of each component (i.e., class diagrams) and how they interact with each other (i.e. sequence diagrams). The diagrams must be conceptually and semantically correct, and have to be linked to one or more of the requirements described above. This deliverable is due in both block I and II: It is expected that the group reflects on the feedback gathered in the first block, and implements the changes as needed for the deliverable of block II.
- *D3 - Source code for Minimum Viable Product (MVP) and demo:* the group will present the work produced in the first block during a 20min presentation. It is expected that the group presents a demo of the system so far, and identifies which of the requirements have been attempted or completed by the end of block I. A timeline for the development of the features in the second block is also expected, and discussed during the demo. As part of the deliverable, the source code of the system so far needs to be handed in, and evaluated as well.

- *D4 - Final demo of the system and presentation of work:* similar to D3, the group must present a 30min demo of their working system during their presentation at the end of block II. Completed features must be clearly identified, and missing features justified. The clarity of the presentation, and the usability of the delivered system will be assessed in this deliverable, and the teaching assistants are expected to provide feedback too.
- *D5 - Source code for release candidate*: in this deliverable the group must hand in all the source code in its final, stable form. The source code will be checked against its intended features, and coding standards evaluated as well as demonstration of group work, coordination and individual contributions.
- *D6 - Traceability Matrix:* the testing of the developed features will be demonstrated in two ways: with the **list of tests** that were compiled to verify and validate the requirements, and with the **demo** that will be run at the end of the course. A traceability matrix containing requirements, architectural components, code implemented and tests will be provided as part of this section.

3. **Group and Individual Marks**

The group as a whole will obtain **one** final grade for the work submitted. Individual grades for the group members will be derived from the relative work and effort devoted by each member. Examples of evidence used to evaluate individual contributions are (but not limited to): code contributions; trello items completed; documentation contributions; TA's report.

An example of the individual grades, based on individual modifiers and group grade, is provided below. The rationale of the adjustments is to reward with the full, group grade, the members who have contributed the most, and scaling the other members' contributions down.

group grade	**member 1**	**member 2**	**member 3**	**member 4**	**member 5**	
8	-1	(MAX)	-2	-1	-1	**modifiers**[1]
	7	8	6	7	7	**final grades**

[1] Evaluated considering individual contributions, and compared to the other members **from the same group** (not the whole course cohort of students)