Sprint 1	Fail	Pass	2 nd Class	First Class	
Planning	 Unsuccessful attempt, or no attempt for planning, Obvious lack of knowledge Misunderstanding of fundamentals (0,1) 	 Successfully identified roles within the team. Several tasks are roughly identified. Tasks are vaguely assigned to the members. Product Backlog is roughly built up. (2) 	 Successfully identified the roles with more details. A reasonable Product backlog is setup. Tasks and deliverables are rigorously identified. All tasks are assigned to the members. A delivery schedule is put together. (3) 	 Comfortably and optimally identified roles. Excellent Product Backlog is setup. Tasks and deliverables are optimally identified and described. Tasks are optimally assigned to the members. A clear schedule of delivery is worked out. (4, 5) 	/5
Database & Login Function	 No or unsuccessful use of DB and Model classes Misunderstanding or unawareness of the fundamentals No or unsuccessful Login function in place (0,1) 	 Connection to DB achieved. Successfully running Login operation through DB via Model classes Basic awareness of the knowledge and DB technology, Basic level Login function is in place (2) 	 Successful connection to DB and use Model classes including all relevant CRUD operations for Login functions. DB is successfully containerised. Clear view and plan on further use of DB for the rest of the WebApp Awareness of limits and implications (3) 	 Comfortable and optimal use of DB operations, well-embedded in model classes, and successfully displaying the results via existing viewers, Login/Logout functions. DB is optimally containerised, and well connected. Clear understanding of wider context of the knowledge with all relevant limits and implications. (4, 5) 	/5

Sprint 2	Fail	Pass	2 nd Class	First Class	
Planning	 Unsuccessful attempt, or no attempt for planning, Obvious lack of knowledge Misunderstanding of fundamentals (0, 1) 	 Successfully identified roles within the team Product backlog is roughly updated. Several tasks are roughly identified. Identified tasks are assigned to the members based on their roles. (2, 3) 	 Successfully identified the roles with more details. Product Backlog is reasonably updated. Tasks are rigorously identified. All roles are mapped with the tasks. A delivery schedule is put together. (4, 5, 6) 	 Comfortably and optimally identified roles. Product Backlog is excellently updated. Tasks are optimally identified and described. A clear schedule of delivery is worked out. (7, 8) 	/8
Deliverables	 Unsuccessful of very little successful delivery of tasks identified. No evidence of effort put together for delivery. (0, 1, 2, 3) 	 A few model, view and template classes are successfully delivered. The architecture is made clear. Evidence of a number of partially completed tasks. More new tasks identified, few unattempted /outstanding tasks. (4, 5, 6, 7) 	 Successful delivery of the majority of the tasks including backend and frontend components The architecture is crystal clear with containerised structure. Further tasks are identified and few unattempted/outstanding tasks planned ahead Few work-in-process / incomplete tasks on the track a little behind the target (8, 9, 10, 11) 	 Successful delivery of the majority or almost all of the tasks, Architecture is optimally designed. No new tasks identified. Few tasks to be tweaked / fine-tuned. Viewer classes are to be improved. Deliverables for use of "services" and security measures are planned ahead. (12, 13, 14, 15) 	/15

	Complete confusion in role playing. Not much communication	 Basic role playing, some tasks are replicated due to confusions. Require further clarifications about 	 All conscious about the roles, All clear about the tasks and deliverables assigned to each. 	All members are clear on their roles, and the outstanding tasks to be completed by each member,	/7
Teamwork Effort	 among the group members No or less attendance to stand-ups. (0, 1) 	 the role. Adjustments needed for fairness and balance. Minimal attendance to Stand-ups (2, 3) 	 There is a little adjustment needed to improve fairness, Good attendance to Stand-ups and good quality of reporting the progress. (4, 5) 	 A very good harmony achieved among the members. Reasonable adjustments made and justified. Optimal attendance of Stand-ups with excellent progress reporting. (6, 7) 	

Sprint 3	Fail	Pass	2 nd Class	First Class	
MVT pattern	 Unsuccessful attempt, or no attempt for implementing MVC (MVT) patterns. Obvious lack of knowledge Misunderstanding of fundamentals (0, 1, 2, 3, 4) 	 Successfully working view class and functions in-line with mixture of templates, form, and model classes Basic grasp of knowledge, but inaccuracy in use of jargon (5, 6, 7, 8) 	 Successful use of MVT patterns, clear split of the roles for models, view, and templates Clear explanations in the wider context of the terms, Being aware of implications of the techs. (9, 10, 11, 12) 	 Comfortable and optimal use of MVT patters, clear split of the roles over M, V and T. Clear explanations of the terms, and concepts with all limits and opportunities. (13, 14, 15) 	/15
DB CRUD operations, Use Containers	 No use or unsuccessful use of DB and model classes Misunderstanding or unawareness of the fundamentals No use of containers (0, 1, 2) 	 Partially implemented DB and model classes, some supported with forms and templates. Successfully running some of DB CRUD operations Basic awareness of the knowledge and DB technology Basic use of containers (3, 4, 5) 	 Successful use of DB and model classes in line with forms and templates for all relevant CRUD operations Connection to DB is managed anyhow. Clear explanations of the terms in the wider context Awareness of limits and implications Successful use of containers (DB and WebApp distributed) (6, 7, 8) 	 Comfortable and optimal use of DB, well-embedded in model and relevant form classes, and successfully displaying the results via viewer classes and templates. Connection is managed once in application scope and used ahead. Clear understanding of wider context of the knowledge with all relevant limits and implications Optimal use of containers (DB, App, Web separated) (9, 10) 	/10
Sessions	 No use of Sessions, or unsuccessful use Not being aware of session concepts (0, 1) 	 Basic use of sessions, partially functioning sessions, Not inactivated with change of users. (2) 	 Successful use of sessions, activated/inactivated on change of users. Successful use of session scope for attributes Good awareness of the session term and its limitations (3, 4) 	 Comfortable and optimal use of sessions, successfully activated/inactivated on change of users. Comfortably using the sessions scope for attributes Clear understanding of the knowledge and technology (5) 	/5
Developing and using "services"	No or unsuccessful use of "services"	Basic understanding of "services" concepts	Successful development, deployment and use of "services", and use of cloud service.	Comfortable development, deployment, and use of "services" for the aimed purpose Comfortable use of cloud service	/10

	No awareness of the	Partial success in development,	Partial correctness of business logic or use of	Very good understanding of the terms and	
	fundamental knowledge of	deployment, and use of "services"	"services" for any purpose rather than the	concepts	
	"services"	Unsuccessful use of cloud service	targeted purpose	Clear awareness of the limits and	
	(0, 1, 2)	Limited understanding of limits and	Good understanding of the concepts and	implications	
		implications	awareness of limits and implications	(9, 10)	
		(3, 4, 5)	(6, 7, 8)		
	No authentication process	A Login function is developed and	Successful development and use of	Comfortable use of authentication and	/5
	developed or unsuccessful	used for any purpose or not	authentication and authorisation	authorisation,	
Authentication/	use.	successfully used.	Clear understanding of relevant knowledge	Comfortable knowledge demonstrated in	
Authorisation	No awareness of the	Basic grasp of authentication with	applied in the application.	this respect.	
	fundamental knowledge	possible confusion	 Awareness of limits and implications 	Clear awareness of the limits and	
	(0, 1)	(2)	(3, 4)	implications (5)	
	No or very limited records of	Limited records of contribution	Clear records of individual contribution	Excellent records of individual contribution	
	teamwork,	 Work roughly divided into tasks. 	 Tasks are well identified and allocated. 	Tasks are clearly identified, allocated and	/15
	No or very rough task	Limited history of collaboration	Clear history of collaboration	workload balanced.	
Teamwork	allocation.	Irregular communication pattern	Good communication evidence	Excellent history of collaboration	
Evidence	No or very little history	reported.	Regular attendance to Stand-ups	Excellent communication	
Evidence	provided.	Minimal attendance to Stand-ups		Excellent Stand-up performance.	
	No or less attendance to	(4, 5, 6, 7)	(8, 9, 10, 11)	(12, 13, 14, 15)	
	Stand-ups.				
	(0,1,2,3)				

Individual Contribution Reference Scheme

Contribution	Minimal Contribution	Moderate Contribution	Equal Contribution	Exceptional Contribution
	0.01 – 0.34	0.35 – 0.69	0.70 – 1.00	1.00 +
Criteria	 All or majority agreed on that no or minimal contribution made, No or very late replies to the messages, No attendance to the meetings Neither intellectual nor practical contribution reported, No or very little evidence collected from GitHub. 	 No clear agreement on the level of contribution made, Not very frequent replies to the messages, Few attendances to the meetings, Moderate level intellectual and/or practical, contribution reported, Some evidence can be 	 All or majority agreed on that maximal contribution made, Regular replies to the messages, Regular attendance to the meetings, Clear intellectual and practical contribution through all Sprints, Clear evidence seen on 	 All agree on exceptional contribution, Lead figure in the group Full attendance to the meetings, Intellectually and practically dominated the group, GitHub reports all commits, branches etc conducted.
		collected from GitHub.	GitHub.	

Overall group mark = (Sprint 1 + Sprint 2 + Sprint 3) (60%) + Software Performance (40%)

Contribution = Peer Assessment (40%) + Stand-up performance (40%) + Tutor observation (20%)

Individual Mark = Contribution x Overall Group Mark

Notes:

- 1. Individual contribution will be evidenced with (a) Task Delivery Tables, (b) traces of commits, pull and push operations on GitHub, (c) confidentially submitted Peer Assessment Forms, and (d) Sprint Review Forms.
- 2. All members will receive the same mark in the cases of equal contribution,
- 3. If one member has performed exceptional contribution, he/she will get higher mark than the group, while the others will receive proportionally lower marks.
- 4. This procedure will be applied to full disagreement cases, and clear lower or exceptional contribution cases.

Stand-up Reference Scheme

Stand-up performance = select one mark form (0, 1, 2, 3, 4, 5).

- 0 → No attendance
- 1 → Attendance with no/minimal progress report
- 2 → Attendance with basic progress report
- 3 → Attendance with good progress report
- 4 → Attendance with very good progress report
- 5 → Attendance with excellent progress report