

Mini Project II: Check List and Team Member Contribution Form

Team Number: 5, DataScape Project Name: OurSpace								
	Criteria	W E I G H T	DESCRIPTION	EXCELLENT (10 PTS) ALL	SATISFACTORY (7 PTS) MOST	BORDERLINE (4 PTS) SOME	INSUFFICIENT (1 PT) NONE	SCORE * WEIGHT
INTERESTING Project Idea								
1.	Project Idea: <i>Project Topic, Description & Requirements</i>	10%	<p>The project idea shows the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> interesting, challenging, creative and reflecting a real-world scenario. <input type="checkbox"/> The project description is clearly identified. <input type="checkbox"/> Application, data requirements, data constraints and business rules are clearly defined, realistic and well-research. <input type="checkbox"/> Important usage scenarios and queries are properly defined: <ul style="list-style-type: none"> <input type="checkbox"/> Important insert, update, delete operations and transactions (minimum 10 operations each); <input type="checkbox"/> Identifying important data inquiries and reports (minimum 20 inquiries or reports); 					
DB DESIGN and DEVELOPMENT								
2.	Conceptual and Logical Design: <i>Appropriateness and accuracy of Design</i>	35%	<p>The conceptual design (ER model) has the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 100% accuracy <input type="checkbox"/> Capture all data requirements explained in the proposal <input type="checkbox"/> Easy to understand with a nice diagram layout <input type="checkbox"/> Follow proper naming convention for the entity names, attribute names, relationship names. 					

			<p>The logical design (relational schema, data dictionary and SQL scripts for table creation and queries) has the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Schema and Data dictionary is accurate (corresponding to the conceptual design) <input type="checkbox"/> Properly define data types for all attributes (with careful domain analysis) <input type="checkbox"/> Properly define the PKs for all tables <input type="checkbox"/> Properly define the FKs for all tables <input type="checkbox"/> Properly define all integrity constraints, and business rules, as defined in the Project Proposal <p>The design is tested with practical, sample data.</p>					
3.	Implementation & Demonstration (Individually evaluated)	35%	<ul style="list-style-type: none"> <input type="checkbox"/> The implemented operations, transactions and queries completely fulfils the project requirements (set at the proposal stage), is practical and useful in a real-world scenario. <input type="checkbox"/> The implementation is well demonstrated. It is interesting and effective in conveying ideas. <input type="checkbox"/> Selected usage scenarios and queries are correctly written in SQL statements and are tested. 					
PRESENTATION								
4.	Presentation & Communication (Individually evaluated) <i>The oral presentation does not exceed the time allotment. It is tight, focused, and clearly explains the project.</i>	20%	<ul style="list-style-type: none"> <input type="checkbox"/> Oral presentation keeps to the time limit and is focused. <input type="checkbox"/> Main ideas are expressed clearly and convincingly. <input type="checkbox"/> Q&A session is well managed and questions can be properly addressed. 					

Work Distribution and Contribution

Task	Kaung Nyo Lwin	Cassandra	Truong Vuong	Aymen Zubair Qureshi
1. Project Proposal: <i>Project Topic, Description & Requirements</i>	Project Description Data Operations Inquiries Report	Project Description Business Rules Inquiries Report	Project Overview Business Rules Query Development Report	Project Description Business Rules Inquiries Report
2. Conceptual and Logical Design	Created the ER diagram as well as the Conceptual diagram Created the Mock data for the user, space, feedback and booking collections. Delivered data population script.	Brainstormed the conceptual design and the necessary attributes in the document. Discussed the document model structure, about implementing embeddings and referencing.	Suggested embedding strategies for frequently queried one-to-few and one-to-many relationships to optimize performance. Recommended when to use embedding vs referencing.	Helped with the conceptual design to ensure efficient data organization. Assisted in deciding which attributes to embed and which ones to reference for the document model structure.
3. Final Presentation	Uploaded the screenshots of Queries and the conceptual diagram. Implemented all proposed transactions and reports.	Uploaded the screenshots of report queries and transactions. Implemented queries to retrieve necessary reports.	Uploaded the screenshots of transactions, queries & reports. Exporting the final Database.	Documented the functions and uploaded screenshots of the queries and transactions performed in our created database.

For each data operation/query, specify its type regarding the syntactic dimension and semantic dimension as well as the members who implement it.

Data Operation/Query	Query Type : Syntactic Dimension		Query Type : Semantic Dimension		Implementer
	I/U/D?	BR/JOIN/GROUP?	OTP?	BP/BT/CA/PA/REC	
1. New owners and customers can register their profile before listing their spaces or booking the spaces.	I		OTP		Kaung Nyo Lwin

2. Customers can book listed spaces	I/U		OTP		Kaung Nyo Lwin
3. Customers can pay the charges for the booked spaces.	U		OTP		Kaung Nyo Lwin
4. Retrieve the most spending customers based on their rental activities		GROUP		CA	Kaung Nyo Lwin
5. Generate a revenue report based on monthly detailed rental transactions.		GROUP		BP	Kaung Nyo Lwin
6. Generate a report to see the most busy days of the weeks		GROUP		BT/BP	Kaung Nyo Lwin
7. Generate a report that shows number of bookings, spending amount, total fee and number of listed spaces by defined price ranges		GROUP		BT/BP	Kaung Nyo Lwin
8. Retrieve a list of available spaces based on the user's information such as location, history of booking, and preferred price range		JOIN/GROUP		REC	Kaung Nyo Lwin
9. Updating an old /Inserting new feedback	I/U			BT	Cassandra Chang
10. Updating the rental rates of the rentable spaces	U	JOIN/GROUP		BT	Cassandra Chang
11. Updating the user details	U	JOIN		BT	Cassandra Chang
12. Finding the report of spaces with the highest ratings, grouped by location or facility type.		BR		BP	Cassandra Chang

13. Fetch all bookings made by a specific customer, including space details, booking dates, facilities used, and total charges.		BR		BP/CA	Cassandra Chang
14. Generate a report for a specific space owner, showing earnings grouped by their spaces.		JOIN/GROUP		BP/PA	Cassandra Chang
15. Retrieve a list of spaces of a Space Owner that are not available.		JOIN/GROUP		PA	Cassandra Chang
16. Generate a report showing all canceled bookings, including the reason for cancellation and associated customer details.	BR			CA	Cassandra Chang
17. Adding a new space to the database	I		OTP		Aymen Zubair Qureshi
18. Updating start and end times of a specific booking	U	GROUP		BP	Aymen Zubair Qureshi
19. deleting specific entry feedback from database	D		OTP		Aymen Zubair Qureshi
20. Retrieving feedback details for a specific customer		BR		CA	Aymen Zubair Qureshi
21. Counting the number of bookings for each space to analyze booking frequency.		GROUP		BP	Aymen Zubair Qureshi
22. Categorizing bookings into time slots (Morning, Afternoon, Evening) for trend analysis.		GROUP		BT	Aymen Zubair Qureshi
23. Retrieving recently listed spaces with details like name, owner, location, and rating.		GROUP		PA	Aymen Zubair Qureshi

24. Identifying the most popular spaces based on booking frequency.		GROUP		REC	Aymen Zubair Qureshi
25. Update the status of a space for maintenance	U		OPT		Truong Vuong
26. Permanently remove a space	D		OPT		Truong Vuong
27. Updating the number of facilities	U		OPT		Truong Vuong
28. Retrieve customer retention metrics and segmentation		GROUP		CA	Truong Vuong
29. Retrieve total system fee trends by month		GROUP		BP	Truong Vuong
30. Retrieve seasonal booking trends and owner revenue analysis		GROUP		BT	Truong Vuong
31. Retrieve customer feedback sentiment classification		JOIN/GROUP		CA	Truong Vuong
32. Retrieve space demand and performance insights		JOIN/GROUP		BP/REC	Truong Vuong

Remark:

Types of SQL Statement: Syntactic Dimension

- (I) Insert, (U) Update, (D) Delete
- Retrieval
 - (BR) Basic Retrieval
 - (JOIN) Join Query / Nested or Subquery
 - (GROUP) Aggregate Query

Types of SQL Statement: Semantics Dimension

- (OPT) Basic Operation/Transaction Support
- Data Intelligence and Customer Insight Support
 - (BP) Business Performance Analysis
 - (BT) Basic Trend Analysis
 - (CA) Customer Analysis
 - (PA) Product Analysis
 - (REC) Suggestion or Recommendation of Products / Services to Users using history data

