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| EXPERIMENT 9: Managing Student Ratings On Subjects Using DynamoDB  **a) Create Table: 23BD5A0520\_EXP9**   1. Go to **AWS Console → DynamoDB → Tables → Create Table**        1. Table name: **23BD5A0520\_EXP9** 2. Partition key: roll\_No(Type: Number) 3. Leave everything else as default.   C:\Documents\Pictures\Screenshots\Screenshot 2025-06-05 095851.png   1. Click **Create Table**     **b) Insert 15 Items**  Go to **: 23BD5A0520\_EXP9**   1. table → **Explore Table Items**   C:\Documents\Pictures\Screenshots\Screenshot 2025-06-05 100141.png   1. Click **Create Item** → Use JSON or Form view.   C:\Documents\Pictures\Screenshots\Screenshot 2025-06-05 100511.png       1. Repeat for the 15 values     **c) Sort Alphabetically by name**  DynamoDB **does not support ORDER BY** like SQL. You must:   1. Use **Scan**. 2. Export data and sort on the client (e.g., Excel, Python, JS). 3. Example: in Python:   Go to Cloud Shell and run the Following Code     |  | | --- | | response = table.scan()  sorted\_items = sorted(response['Items'], key=lambda x: x['name'] |   C:\Documents\Pictures\Screenshots\Screenshot 2025-06-05 112537.png  **d) Count students with rating = 5**   1. Go to **Explore Table Items** → **Scan** 2. Add a **filter expression**:   C:\Documents\Pictures\Screenshots\Screenshot 2025-06-05 112831.png     1. Click **Run** 2. Count how many items were returned     **e) Average Rating per Subject**  **1) Run the following code in cloud Shell**   |  | | --- | | **from collections import defaultdict**  **subject\_totals = defaultdict(list)**  **for item in items:**  **subject = item['subject']**  **rating = item['rating']**  **subject\_totals[subject].append(rating)**  **for subject, ratings in subject\_totals.items():**  **avg = sum(ratings) / len(ratings)**  **print(f"Average rating for {subject}: {avg:.2f}")** |     **f) Update Student Name**   1. In **Explore Table Items**, find the item (e.g., Bob) 2. Click the item → Edit 3. Change "name": "Ramu" to "name": "Ravi" → Save     C:\Documents\Pictures\Screenshots\Screenshot 2025-06-05 121851.png  C:\Documents\Pictures\Screenshots\Screenshot 2025-06-05 121915.png  **g) Delete Duplicates (by name + subject)**  DynamoDB can’t find duplicates directly, so you must:   1. Scan all items 2. In your script, keep a set of (name, subject) 3. If you see a duplicate, call DeleteItem           S16 item with Alicia as Duplicate is Deleted Successfully |