Cloud Computing Exercise #12

Creating and Manipulating a Simple DynamoDB Table

A. Preparation

1. Sign in to your AWS account as the non-root admin user.

B. Create a DynamoDB table

1. Go to the DynamoDB dashboard and select “Create table”.
2. Set the table name to “Inventory”, the partition key to be “itemNo” (item number), and the partition key type to “Number”. Skip the sort key specification. In the Settings dialog, select “Customize settings”. In the read/write capacity settings, turn off the read capacity and write capacity auto-scaling features. Leave the rest of the settings with their default values and select “Create table”. The list of DynamoDB tables will appear, and you will see the table “Inventory” appear in a few seconds.

C. Add items to the table

1. Navigate to DynamoDB -> Explore Items -> Inventory. Click on create “item”

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| itemNo  [number]  (primary key) | itemName  [string] | quantity  [number] | unitPrice  [number] | weight  [number] |
| 1234 | Laptop | 5 | 1214 | 4 |
| 6789 | Computer mouse | 14 | 15 | 0.1 |
| 4622 | Windows 11 OS | 7 | 500 | N/A |
| 9684 | MS Office | 3 | 380 | N/A |

1. Enter the information for the first item in the table by first entering the value for the “ItemNo” attribute (primary key), and then adding the remaining attributes (key/value pairs) and setting their types. The attribute names and types are given in the header of the above table, while the attribute values are the entries in the table. If the table contains an “N/A” entry, it means that a particular item does not have that particular attribute. Then, select “Create Item”. Repeat this and create all items in the table. You should see the items of the table showing up at the bottom of the “Items returned” section.

D. Query the table

1. On the right hand side, click on the table name (“Inventory”) and you should see the query functionality appearing. Select “specific attributes” and query the table for the “itemName” and “quantity” attributes of the item whose “itemNo” (primary key) is 4622. Run the query, and in the “Items returned” section you should see one returned item.
2. Now select “Scan” and run the scan. If you want, you can specify only certain attributes and see the differences in the results of items returned.

E. Modify the items in the table

1. To modify an item in the table, In the “Items returned” section, check the checkbox of the MS office row (itemNo: 9684) in the table, go to “Actions” and select “Edit”. Change the value of the “itemName” attribute to “MS Office Home” and save the changes. The item will update with the new attribute value.
2. To delete an intem in the table, delete the “Computer mouse” row (the item with itemNo = 6789). In the “Items returned” section, check the checkbox of the appropriate item (row) in the table, go to “Actions” and select “Delete items”. After confirming the deletion, the item (row) should disappear from your table.

F. Clean up after yourself

1. Delete the Inventory table. Go to the Tables submenu (Services/DynamoDB/Tables) and check the checkbox of the Inventory table. Select “Delete” and confirm the deletion of the table. The table should disappear from the table list.
2. Log out of AWS.