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**School of Engineering & Technology**

**Asian Institute of Technology**

**AT82.02 - Data Modeling and Management**

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**Date: <>**

**Lab Report: 05**

**Submitted To Submitted By:**

**Dr. Chutiporn Anutariya <>**

**Lab05: Key-Value (Redis)**

**Objective:** To study and practice the basic command to collect and retrieve data from the key-value store using Redis

**Estimated Time:** 1 hour

**Number of Tasks:** 5

**Due:** Friday 30 September 2022, 11:50 P.M.

**Scenario: Simple Social Network System (SNS)**

This take-home exercise uses the TickTock e-Commerce that we discussed in the class. There are some tasks that require you to implement Redis to maintain the data circulating in the system. Please consider the example of data and answer the following questions.

**Table 1 Product**

| **Id** | **name** | **category** | **status** |
| --- | --- | --- | --- |
| 101 | officeChair | office | available |
| 102 | rockingChair | home | unavailable |
| 103 | officeTable | office | unavailable |

**Table 2 ProductComment**

| **commentId** | **comment** | **username** | **productName** |
| --- | --- | --- | --- |
| C01 | Comfortable chair. | tommy.shelby | officeChair |
| C02 | Got this for my dad. | steve.jobs | rockingChair |
| C03 | Office chair sorted. | jon.snow | officeChair |

**Questions**

**Task 1:** What are the appropriate data type to store the **Product** and **ProductComment** information explain briefly your reasons. Moreover, how do you name the key to identify each user easily?

**Product and Comment are the** sorted set data type because it is a collection of unique strings ordered by user defined scoring.

**Task 2:** Insert 3 new products (as mentioned in the table above) using the data type and naming method you have mentioned above.

ZADD viewed:user:manager-1 1590215629004 P004

ZADD viewed:user:manager-1 1590215629005 P005

ZADD viewed:user:manager-1 1590215629006 P006

ZADD cart:user:saam P004 "{id:104, name:Staplers, category:Office , status:available}”

ZADD cart:user:saam P005 "{id:104, name:Bed, category:Home , status:available}”

ZADD cart:user:saam P006 "{id:104, name:Printer, category:Office , status:available}”

**Task 3:** Insert 3 product comments (as mentioned in the table above) using the data type as a naming method as you have mentioned above.

ZADD viewed:user:manager-1 1690215629004 C04

ZADD viewed:user:manager-1 1690215629005 C05

ZADD viewed:user:manager-1 1690215629006 C06

ZADD cart:user:saam C04"{commentId:104, comment:Comfy, username:tim.cook , productName:OfficeChair}”

ZADD cart:user:saam C05"{commentId:104, comment:Faster copy, username:justin.bieber, productName:Printer}”

ZADD cart:user:saam C06"{commentId:104, comment:It’s very soft, username:tom.hiddleston , productName:Bed}”

**Task 4**: Multiple users can like a particular product. How can we handle this requirement? Show the key and value pair to store two the number of likes for any of the above two products.

SET login:session-1 "{user\_id:todsavad}"

MSET login:session-1

SET likes

**Task 5:** When someone has just clicked the like button for the product, how do you update (increase) the number of **likes**? Show your command as an example.

INCR likes