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**Batch – T8 Subject - DBMS**

**Assignment No – B3 Batch – T20**

**Title:** MongoDB - Map reduces operations.

**Problem Statement:** Create an orders collection with fields customer id, order date, status, price and items, quantity. Execute the given queries using MapReduce. Perform map reduce operation on orders collection.

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**Queries –**

**1. Display total price per customer.**

b3> var map = function(){emit(this.customer\_id, this.price);};

b3> var red = function(customerId, prices){return Array.sum(prices);};

b3> db.orders.mapReduce(map,red,{'out':'neworders'})

b3> db.total\_price\_per\_customer.find();

{ "\_id" : 101, "price" : 50.00 }

{ "\_id" : 102, "price" : 75.50 }

{ "\_id" : 103, "price" : 30.25 }

{ "\_id" : 104, "price" : 90.00 }

**2. Display total price per customer having status= D**

b3> db.orders.mapReduce(map,red,{'query':{Status:'D'},'out':'new1'})

{ result: 'new1', ok: 1 }

b3> db.new1.find().pretty()

{ "\_id" : 102, "price" : 75.50 }

{ "\_id" : 104, "price" : 90.00 }

**3. Display total price for Status =P**

b3> db.orders.mapReduce(map,red,{'query':{Status:'P'},'out':'new2'})

{ result: 'new2', ok: 1 }

b3> db.new2.find().pretty()

{ "\_id" : 101, "price" : 50.00 }

{ "\_id" : 103, "price" : 30.25 }

**4. Finding count of all keys in orders collection**

b3> db.orders.mapReduce(map1,red1,{'out':'new3'})

{ "result" : "new3", "timeMillis" : 356, "counts" : { "input" : 6, "emit" : 62, "reduce" : 11, "output" : 11 }, "ok" : 1 }

b3> db.new3.find().pretty()

{ "\_id" : "Amt", "value" : { "CountOfKey" : 6 } }

{ "\_id" : "Cust\_id", "value" : { "CountOfKey" : 6 } }

{ "\_id" : "Cust\_name", "value" : { "CountOfKey" : 6 } }

{ "\_id" : "DtOfOrder", "value" : { "CountOfKey" : 6 } }

{ "\_id" : "Email\_id", "value" : { "CountOfKey" : 2 } }

{ "\_id" : "Item\_name", "value" : { "CountOfKey" : 6 } }

{ "\_id" : "Order\_id", "value" : { "CountOfKey" : 6 } }

{ "\_id" : "Phone\_no", "value" : { "CountOfKey" : 6 } }

{ "\_id" : "Qty", "value" : { "CountOfKey" : 6 } }

{ "\_id" : "Status", "value" : { "CountOfKey" : 6 } }

{ "\_id" : "\_id", "value" : { "CountOfKey" : 6 } }