Inserting into Users

```
db.users.insert([

  {

    "User_ID": 0,

    "Password": "DK0Qs1eoxm813W",

    "Email_ID": "havbxl@-go-uj.com",

    "Gender": "Female",

    "Address": "87 South White Milton Way",

    "Current_location": "269 North White Nobel Parkway",

    "Ethnicity": "Middle Eastern"

  },

  {

    "User_ID": 3,

    "Password": "EEO924fLgW05",

    "Email_ID": "nkls.mughxf@q--g--.org",

    "Gender": "Female",

    "Address": "43 North Rocky Second Drive",

    "Current_location": "774 East Green Second Freeway",

    "Ethnicity": "Asian"

  },

  {

    "User_ID": 6,

    "Password": "xsc4I6J8iULBd",

    "Email_ID": "ctuf.qacaf@k-n--z.net",

    "Gender": "Female",

    "Address": "610 North Green Clarendon Freeway",

    "Current_location": "647 North Rocky Old Avenue",

    "Ethnicity": "Asian"

  },

  {

    "User_ID": 7,

    "Password": "SvDPMC6B5C16H5",
```

    "Email_ID": "bovq@xmm--s.com",

    "Gender": "Female",

    "Address": "475 North Green Nobel Avenue",

    "Current_location": "84 South Green Milton Blvd.",

    "Ethnicity": "Pacific Islander"

  },

  {

    "User_ID": 8,

    "Password": "jOGAvNQY8Uv",

    "Email_ID": "neit@-sy-qj.com",

    "Gender": "Male",

    "Address": "620 North Green New Blvd.",

    "Current_location": "548 North Rocky New Boulevard",

    "Ethnicity": "Indigenous"

  },

  {

    "User_ID": 11,

    "Password": "VOXsQA5v7jOw2G",

    "Email_ID": "vjpwx032@-e--c-.org",

    "Gender": "Female",

    "Address": "882 West White Milton Street",

    "Current_location": "851 North Green Oak Way",

    "Ethnicity": "Pacific Islander"

  },

  {

    "User_ID": 12,

    "Password": "BJ7sDtBIrl4",

    "Email_ID": "dnnb64@--owk-.net",

    "Gender": "Female",

    "Address": "42 North Rocky Fabien Road",

    "Current_location": "40 East White Milton Freeway",

    "Ethnicity": "African American"

```
  }
]);
```

Result

```
BulkWriteResult({
        "writeErrors" : [ ],
        "writeConcernErrors" : [ ],
        "nInserted" : 7,
        "nUpserted" : 0,
        "nMatched" : 0,
        "nModified" : 0,
        "nRemoved" : 0,
        "upserted" : [ ]
})
```

Updating User 0 and User 3

```
db.users.update(
 {"User_ID": 0},
 {
   $set: {
     "Password": "jM8CO3XOxr",
     "Email_ID": "fpdh1@----wz.net",
     "Gender": "Female",
     "Address": "175 West Rocky Milton Road",
     "Current_location": "529 South Rocky Hague Road",
     "Ethnicity": "Pacific Islander"
   }
 }
);


db.users.update(
 {"User_ID": 3},
 {
   $set: {
     "Password": "UcMyglMC1WW7J18",
```

```
      "Email_ID": "huheeh@w----n.com",

      "Gender": "Male"

    }

  }

);
```

```
1   db.users.update(
2     { "User_ID": 0 },
3     {
4       $set: {
5         "Password": "jM8CO3XOxr",
6         "Email_ID": "fpdh1@----wz.net",
7         "Gender": "Female",
8         "Address": "175 West Rocky Milton Road",
9         "Current_location": "529 South Rocky Hague Road",
10        "Ethnicity": "Pacific Islander"
11      }
12    }
13  );
14
15  db.users.update(
16    { "User_ID": 3 },
17    {
18      $set: {
19        "Password": "UcMyg1MC1WW7J18",
20        "Email_ID": "huheeh@w----n.com",
21        "Gender": "Male"
```

Run

Result

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

Finding Users who are Female and Asian

```
db.users.find({

   "Gender": "Female",

   $and: [

   {"Ethnicity":"Asian"}]

})
```

```
1  db.users.find({
2    "Gender": "Female",
3    $and: [
4      { "Ethnicity": "Asian" }
5    ]
6  });
7
```

Run

Result

{ "_id" : ObjectId("656d0417fbe073e6f335dc82"), "User_ID" : 6, "Password" : "xsc4I6J8iULBd", "Email_ID"

Inserting into Areas

db.areas.insert([{

  "Area_ID": 0,

  "Crime_Rate": 72.36,

  "Nearest_Safezone_ID": 73,

  "Location": "Nobel Way",

  "Population": 73060,

  "Median_Income": 72.32,

  "Employed_Income": 72.35

},

{

  "Area_ID": 1,

  "Crime_Rate": 40.6,

  "Nearest_Safezone_ID": 29,

  "Location": "Oak Blvd.",

  "Population": 91871,

  "Median_Income": 8.74,

  "Employed_Income": 57.38

},

{

    "Area_ID": 2,

    "Crime_Rate": 20.56,

    "Nearest_Safezone_ID": 90,

    "Location": "Fabien Blvd.",

    "Population": 91860,

    "Median_Income": 48.4,

    "Employed_Income": 77.02

  },

  {

    "Area_ID": 3,

    "Crime_Rate": 32.94,

    "Nearest_Safezone_ID": 0,

    "Location": "Clarendon Boulevard",

    "Population": 67955,

    "Median_Income": 45.72,

    "Employed_Income": 11.38

  },

  {

    "Area_ID": 4,

    "Crime_Rate": 95.81,

    "Nearest_Safezone_ID": 49,

    "Location": "Milton Street",

    "Population": 7838,

    "Median_Income": 44.41,

    "Employed_Income": 33.46

  },

  {

    "Area_ID": 5,

    "Crime_Rate": 0.61,

    "Nearest_Safezone_ID": 85,

    "Location": "New Freeway",

    "Population": 2481,

    "Median_Income": 69.07,

    "Employed_Income": 67.22

  },

  {

    "Area_ID": 6,

    "Crime_Rate": 95.41,

    "Nearest_Safezone_ID": 98,

    "Location": "Cowley Boulevard",

    "Population": 69925,

    "Median_Income": 27.5,

    "Employed_Income": 53.68

  },

  {

    "Area_ID": 7,

    "Crime_Rate": 93.05,

    "Nearest_Safezone_ID": 3,

    "Location": "Clarendon St.",

    "Population": 80493,

    "Median_Income": 75.24,

    "Employed_Income": 88.59

  },

  {

    "Area_ID": 8,

    "Crime_Rate": 93.77,

    "Nearest_Safezone_ID": 85,

    "Location": "Hague Road",

    "Population": 15123,

    "Median_Income": 21.71,

    "Employed_Income": 1.51

  },

  {

    "Area_ID": 9,

```
    "Crime_Rate": 92.77,

    "Nearest_Safezone_ID": 92,

    "Location": "Cowley Street",

    "Population": 92458,

    "Median_Income": 91.12,

    "Employed_Income": 92.36

  },

  {

    "Area_ID": 10,

    "Crime_Rate": 39.32,

    "Nearest_Safezone_ID": 98,

    "Location": "Oak Avenue",

    "Population": 76383,

    "Median_Income": 87.72,

    "Employed_Income": 51.42

}]);
```

```
1 ▼ db.areas.insert([{
2       "Area_ID": 0,
3       "Crime_Rate": 72.36,
4       "Nearest_Safezone_ID": 73,
5       "Location": "Nobel Way",
6       "Population": 73060,
7       "Median_Income": 72.32,
8       "Employed_Income": 72.35
9     },
10 ▼  {
11      "Area_ID": 1,
12      "Crime_Rate": 40.6,
13      "Nearest_Safezone_ID": 29,
14      "Location": "Oak Blvd.",
15      "Population": 91871,
16      "Median_Income": 8.74,
17      "Employed_Income": 57.38
18     },
19 ▼  {
20      "Area_ID": 2,
21      "Crime_Rate": 20.56,
22      "Nearest_Safezone_ID": 90,
```

Run

Result

```
BulkWriteResult({
        "writeErrors" : [ ],
        "writeConcernErrors" : [ ],
        "nInserted" : 11,
        "nUpserted" : 0,
        "nMatched" : 0,
        "nModified" : 0,
        "nRemoved" : 0,
        "upserted" : [ ]
})
```
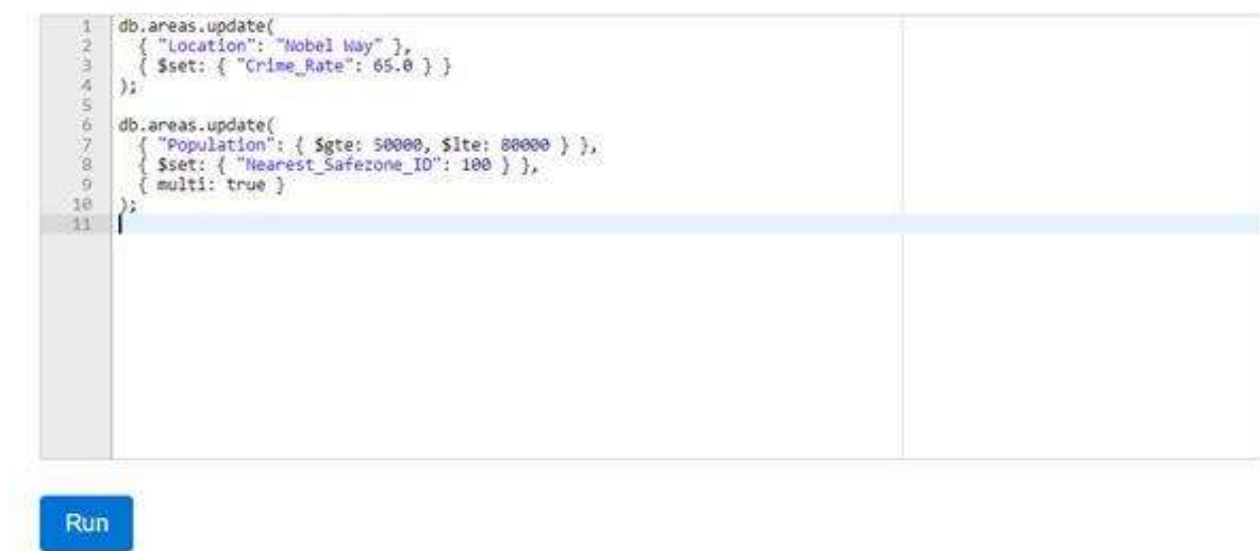
Update Crime Rate for a Specific Location:

db.areas.update(

  { "Location": "Nobel Way" },

  { $set: { "Crime_Rate": 65.0 } }

);

Update Nearest Safezone ID for Specific Population Range:

db.areas.update(

  { "Population": { $gte: 50000, $lte: 80000 } },

  { $set: { "Nearest_Safezone_ID": 100 } },

  { multi: true }

);

This query sets the Nearest Safezone ID to 100 for areas with a population between 50,000 and 80,000.

```
1  db.areas.update(
2      { "Location": "Nobel Way" },
3      { $set: { "Crime_Rate": 65.0 } }
4  );
5
6  db.areas.update(
7      { "Population": { $gte: 50000, $lte: 80000 } },
8      { $set: { "Nearest_Safezone_ID": 100 } },
9      { multi: true }
10 );
11 |
```

Run

Result

WriteResult({ "nMatched" : 4, "nUpserted" : 0, "nModified" : 4 })

Areas with a population greater than 50,000 and a median income above 60:

db.areas.find({

  "Population": { $gt: 50000 },

  "Median_Income": { $gt: 60 }

});

```
1   db.areas.find({
2       "Population": { $gt: 50000 },
3       "Median_Income": { $gt: 60 }
4   });
5
```

Run

Result

{ "_id" : ObjectId("656d0ba30d4e13f5bd568095"), "Area_ID" : 0, "Crime_Rate" : 65, "Nearest_Safezone_ID"
{ "_id" : ObjectId("656d0ba30d4e13f5bd56809c"), "Area_ID" : 7, "Crime_Rate" : 93.05, "Nearest_Safezone_I
{ "_id" : ObjectId("656d0ba30d4e13f5bd56809e"), "Area_ID" : 9, "Crime_Rate" : 92.77, "Nearest_Safezone_I
{ "_id" : ObjectId("656d0ba30d4e13f5bd56809f"), "Area_ID" : 10, "Crime_Rate" : 39.32, "Nearest_Safezone_

Inserting into Incidents:

```
db.incidents.insert({

  "_id": 1,

  "Incident_ID": 1,

  "Description": "A violent assault occurred near the downtown area involving a suspect wielding a weapon.",

  "Incident_type": "Accident",

  "Area_ID": 14,

  "Incident_DateTime": "2008-11-28 09:05:35"

});

db.incidents.insert({

  "_id": 2,

  "Incident_ID": 2,

  "Description": "A violent assault occurred near the downtown area involving a suspect wielding a weapon.",

  "Incident_type": "Violent Crime",

  "Area_ID": 1,

  "Incident_DateTime": "2008-12-02 10:59:01"

});

db.incidents.insert({

  "_id": 3,
```

```
  "Incident_ID": 3,

  "Description": "\nThe police apprehended a suspect involved in an arson incident that damaged a commercial
property.",

  "Incident_type": "Theft",

  "Area_ID": 20,

  "Incident_DateTime": "2008-10-23 22:23:44"

});

db.incidents.insert({

  "_id": 4,

  "Incident_ID": 4,

  "Description": "\nThe police apprehended a suspect involved in an arson incident that damaged a commercial
property.",

  "Incident_type": "Accident",

  "Area_ID": 1,

  "Incident_DateTime": "2008-12-02 10:02:42"

});

db.incidents.insert({

  "_id": 5,

  "Incident_ID": 5,

  "Description": "A violent assault occurred near the downtown area involving a suspect wielding a weapon.",

  "Incident_type": "Violent Crime",

  "Area_ID": 14,

  "Incident_DateTime": "2008-03-20 22:03:57"

});

db.incidents.insert({

  "_id": 6,

  "Incident_ID": 6,

  "Description": "\nPolice are investigating a burglary that took place last night, with the suspect breaking into a
residence.",

  "Incident_type": "Violent Crime",

  "Area_ID": 19,

  "Incident_DateTime": "2008-09-05 22:13:48"

});

db.incidents.insert({
```

```
  "_id": 7,

  "Incident_ID": 7,

  "Description": "\nThe police apprehended a suspect involved in an arson incident that damaged a commercial
property.",

  "Incident_type": "Violent Crime",

  "Area_ID": 14,

  "Incident_DateTime": "2008-04-14 07:36:03"

});
db.incidents.insert({

  "_id": 8,

  "Incident_ID": 8,

  "Description": "\nThe police apprehended a suspect involved in an arson incident that damaged a commercial
property.",

  "Incident_type": "Violent Crime",

  "Area_ID": 5,

  "Incident_DateTime": "2008-01-29 21:33:28"

});
db.incidents.insert({

  "_id": 9,

  "Incident_ID": 9,

  "Description": "A violent assault occurred near the downtown area involving a suspect wielding a weapon.",

  "Incident_type": "Theft",

  "Area_ID": 21,

  "Incident_DateTime": "2008-07-01 14:32:49"

});
db.incidents.insert({

  "_id": 10,

  "Incident_ID": 10,

  "Description": "A violent assault occurred near the downtown area involving a suspect wielding a weapon.",

  "Incident_type": "Accident",

  "Area_ID": 16,

  "Incident_DateTime": "2008-01-10 06:57:43"

});
```

```
db.incidents.insert({

  "_id": 11,

  "Incident_ID": 11,

  "Description": "\nThe police apprehended a suspect involved in an arson incident that damaged a commercial property.",

  "Incident_type": "Theft",

  "Area_ID": 8,

  "Incident_DateTime": "2008-11-08 06:22:53"

});
```

Updating Incident 2

```
db.incidents.update(

{"_id":2},

{$set:

{"Incident_DateTime": "2008-11-28 09:40:01"}}

);
```

```
1   db.incidents.update(
2   {"_id":2},
3   {$set:
4   {"Incident_DateTime": "2008-11-28 09:40:01"}}
5   );
```

Run

Result

```
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 0 })
```

Distinct Incidents

```
db.incidents.distinct("Incident_type")
```

```
1  db.incidents.distinct("Incident_type");
```

Run

Result

```
[ "Accident", "Violent Crime", "Theft" ]
```

Group by Incident Type:

db.incidents.aggregate(

[{ $group: { _id: "$Incident_type", total: { $sum: 1 } } },

{ $sort: { total: 1 } } // -1 ==> desc

]);

```
1  db.incidents.aggregate(
2  [
3  { $group: { _id: "$Incident_type", total: { $sum: 1 } } },
4  { $sort: { total: 1 } } // -1 ==> desc
5  ]
6  );
```

Run

Result

```
{ "_id" : "Theft", "total" : 3 }
{ "_id" : "Accident", "total" : 3 }
{ "_id" : "Violent Crime", "total" : 5 }
```

Inserting into Suspects

```
db.suspects.insert({
  "_id": 0,
  "Suspect_ID": 0,
  "Name": "Abel Warren",
  "Address_Area": "308 East White Second Drive",
  "In_jail": 0,
  "Photo": "..."
});
db.suspects.insert({
  "_id": 1,
  "Suspect_ID": 1,
  "Name": "Erick Valentine",
  "Address_Area": "77 South Green Clarendon Freeway",
  "In_jail": 1,
  "Photo": "..."
});
db.suspects.insert({
  "_id": 2,
  "Suspect_ID": 2,
  "Name": "Janice Payne",
  "Address_Area": "33 South White Cowley Drive",
  "In_jail": 1,
  "Photo": "..."
});
db.suspects.insert({
  "_id": 3,
  "Suspect_ID": 3,
  "Name": "Gretchen Mason",
  "Address_Area": "48 North White New Street",
  "In_jail": 0,
  "Photo": "..."
});
```

```
db.suspects.insert({
  "_id": 4,
  "Suspect_ID": 4,
  "Name": "Lawanda Noble",
  "Address_Area": "124 East Rocky Nobel St.",
  "In_jail": 1,
  "Photo": "..."
});
db.suspects.insert({
  "_id": 5,
  "Suspect_ID": 5,
  "Name": "Robbie Baird",
  "Address_Area": "371 South Green Fabien Way",
  "In_jail": 0,
  "Photo": "..."
});
db.suspects.insert({
  "_id": 6,
  "Suspect_ID": 6,
  "Name": "Carla Compton",
  "Address_Area": "381 North Green First Avenue",
  "In_jail": 0,
  "Photo": "..."
});
db.suspects.insert({
  "_id": 7,
  "Suspect_ID": 7,
  "Name": "Heath Stafford",
  "Address_Area": "80 East Green Second Drive",
  "In_jail": 1,
  "Photo": "..."
});
```

```
db.suspects.insert({
  "_id": 8,
  "Suspect_ID": 8,
  "Name": "Kendra Stevenson",
  "Address_Area": "485 North Green Hague Freeway",
  "In_jail": 0,
  "Photo": "..."
});
db.suspects.insert({
  "_id": 9,
  "Suspect_ID": 9,
  "Name": "Brandie Chase",
  "Address_Area": "67 South Green Second St.",
  "In_jail": 0,
  "Photo": "..."
});
db.suspects.insert({
  "_id": 10,
  "Suspect_ID": 10,
  "Name": "Rose Kirk",
  "Address_Area": "584 North Green Milton Way",
  "In_jail": 1,
  "Photo": "..."
});
```

Updating Suspect details

```
db.suspects.update(
  {"Suspect_ID": 8},
  {
    $set: {
      "Name": "Gretchen Mason",
      "Address_Area": "48 North White New Street",
      "Gender": "Male"
```

```
    }

  }

);
```

```
1   db.suspects.update(
2     {"Suspect_ID": 8},
3     {
4       $set: {
5         "Name": "Gretchen Mason",
6         "Address_Area": "48 North White New Street",
7         "Gender": "Male"
8       }
9     }
10  );
```

Run

Result

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

Finding Distinct Suspect

db.suspects.distinct("Name")

```
i 1    db.suspects.distinct("Name")
```

Run

Result

```
[
        "Abel Warren",
        "Erick Valentine",
        "Janice Payne",
        "Gretchen Mason",
        "Lawanda Noble",
        "Robbie Baird",
        "Carla Compton",
        "Heath Stafford",
        "Brandie Chase",
        "Rose Kirk"
]
```

Finding Count of Suspects in Jail

db.suspects.aggregate(

[{ $group: { _id: "$In_jail", total: { $sum: 1 } } },

{ $sort: { total: 1 } }]);

```
1   db.suspects.aggregate(
2 ▾ [
3   { $group: { _id: "$In_jail", total: { $sum: 1 } } },
4   { $sort: { total: 1 } } // -1 ==> desc
5   ]
6   );
```

Run

Result

```
{ "_id" : 1, "total" : 5 }
{ "_id" : 0, "total" : 6 }
```