1. **Different cars available for booking:**

Query:

db.cars.distinct("CarType", { "AvailabilitN": { "$eq": "Y" } })

1. **Total Number of bookings for 20th March 2023?**

Query:

db.carbooking.find({ "FromDate": { "$regex": "2023-03-20" }}).count()

1. **Most popular Insurance plans.**

Query:

db.carinsurance.aggregate([

{

$lookup: {

from: "carbooking",

localField: "Ins\_ID",

foreignField: "Ins\_ID",

as: "booking\_docs"

}

},

{

$addFields: {

Count\_Total: { $size: "$booking\_docs" }

}

},

{

$sort: { Count\_Total: -1 }

},

{

$limit: 1

},

{

$project: {

\_id: 0,

InsuranceName: 1

}

}

]);

1. **Most popular Car Type among the customers?**

Query:

db.carbooking.aggregate([

{$lookup: {

from: "cars",

localField: "CarRegNumber",

foreignField: "CarRegNumber",

as: "carDetails"

}},

{ $unwind: "$carDetails" },

{ $group: {

\_id: "$carDetails.CarType",

total\_bookings: { $sum: 1 }

}},

{ $sort: { total\_bookings: -1 } },

{ $project: {

\_id: 0,

carType: "$\_id",

total\_bookings: 1

}}

]);

1. **Top 3 customers with highest number of car bookings.**

db.carbooking.aggregate([

{

$group: {

\_id: "$CustID",

totalBookings: {

$sum: 1

}

}

},

{

$lookup: {

from: "customer",

localField: "CustID",

foreignField: "Cust\_ID",

as: "customer"

}

},

{

$unwind: "$customer"

},

{

$project: {

\_id: "$customer.Cust\_ID",

CustomerName: {

$concat: [

"$customer.FirstName",

" ",

"$customer.LastName"

]

},

TotalBookings: "$totalBookings"

}

},

{

$sort: {

TotalBookings: -1

}

},

{

$limit: 3

}

]);