**Budget and Financials of MBTA**

**Milestone: Implementation in MongoDB**

**Group 21**

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**Percentage of Effort Contributed by Student 1**: 50 .

**Percentage of Effort Contributed by Student 2**: 50 .

**Signature of Student 1:** Gouru Karthikeya Reddy

**Signature of Student 2:** Giri Manohar Vemula

**Submission Date:** 04-16-2023

Collection: Bus

Documents:

[

    {

        "vehicleID" : 8101,

        "BusRate" : 1.4,

        "License\_Plate\_Num" : "6HV8I9",

        "RouteNo" : 99

    },

    {

        "vehicleID" : 8102,

        "BusRate" : 1.4,

        "License\_Plate\_Num" : "6HV8O9",

        "RouteNo" : 90

    },

    {

        "vehicleID" : 8103,

        "BusRate" : 1.4,

        "License\_Plate\_Num" : "6HV719",

        "RouteNo" : 85

    },

    {

        "vehicleID" : 8104,

        "BusRate" : 1.4,

        "License\_Plate\_Num" : "6HV909",

        "RouteNo" : 80

    },

    {

        "vehicleID" : 8105,

        "BusRate" : 1.4,

        "License\_Plate\_Num" : "6HU509",

        "RouteNo" : 87

    },

    {

        "vehicleID" : 8106,

        "BusRate" : 1.4,

        "License\_Plate\_Num" : "6HT779",

        "RouteNo" : 30

    },

    {

        "vehicleID" : 8107,

        "BusRate" : 1.4,

        "License\_Plate\_Num" : "6HE459",

        "RouteNo" : 88

    },

    {

        "vehicleID" : 8108,

        "BusRate" : 1.4,

        "License\_Plate\_Num" : "6HR789",

        "RouteNo" : 90

    }

]

Collection: Vehicle

Documents:

[

    {

        "vehicleID" : 8101,

        "model" : "A1",

        "start\_place" : "Fenway",

        "end\_place" : "schrewsberry "

    },

    {

        "vehicleID" : 8102,

        "model" : "B3",

        "start\_place" : "Cambridge",

        "end\_place" : "Huntington"

    },

    {

        "vehicleID" : 8103,

        "model" : "C5",

        "start\_place" : "Charlestown",

        "end\_place" : "Fenway"

    },

    {

        "vehicleID" : 8104,

        "model" : "V6",

        "start\_place" : "Assembly",

        "end\_place" : "Hay Market"

    },

    {

        "vehicleID" : 8105,

        "model" : "B7",

        "start\_place" : "Charlestown",

        "end\_place" : "Roxbury"

    },

    {

        "vehicleID" : 8106,

        "model" : "B9",

        "start\_place" : "Copley",

        "end\_place" : "Symphony"

    }

]

Collection: Department

Documents:

[

    {

        "DepartmentID" : 101,

        "Dept\_Location" : "Ruggles",

        "Job\_Description" : "Cleaning"

    },

    {

        "DepartmentID" : 102,

        "Dept\_Location" : "North Station",

        "Job\_Description" : "Helpers"

    },

    {

        "DepartmentID" : 103,

        "Dept\_Location" : "Government Center",

        "Job\_Description" : "Cleaning"

    },

    {

        "DepartmentID" : 104,

        "Dept\_Location" : "Downtown Crossing",

        "Job\_Description" : "Helpers"

    },

    {

        "DepartmentID" : 105,

        "Dept\_Location" : "South Station",

        "Job\_Description" : "Sweepers"

    },

    {

        "DepartmentID" : 106,

        "Dept\_Location" : "Charles MGH",

        "Job\_Description" : "Ticket Supervisor"

    },

    {

        "DepartmentID" : 107,

        "Dept\_Location" : "Downtown Crossing",

        "Job\_Description" : "Ticket Supervisor"

    },

    {

        "DepartmentID" : 108,

        "Dept\_Location" : "Charles MGH",

        "Job\_Description" : "Cleaning"

    }

]

Collection: Employee

Documents:

[

    {

        "EmployeeID" : 211,

        "SSN" : 123456789,

        "FirstName" : "Sergio",

        "LastName" : "Ramos",

        "DateOfBirth" : "1999-09-14",

        "StartDate" : "2022-07-08",

        "LastDate" : "null",

        "City" : "Boston",

        "Country" : "MA",

        "DepartmentID" : 101,

        "Gender" : "Male"

    },

    {

        "EmployeeID" : 212,

        "SSN" : 446789122,

        "FirstName" : "Cristiano",

        "LastName" : "Ronaldo",

        "DateOfBirth" : "2000-04-19",

        "StartDate" : "2021-07-01",

        "LastDate" : "null",

        "City" : "Boston",

        "Country" : "MA",

        "DepartmentID" : 102,

        "Gender" : "Male"

    },

    {

        "EmployeeID" : 213,

        "SSN" : 125789122,

        "FirstName" : "Karim",

        "LastName" : "Benzema",

        "DateOfBirth" : "2000-03-11",

        "StartDate" : "2020-04-18",

        "LastDate" : "null",

        "City" : "Boston",

        "Country" : "MA",

        "DepartmentID" : 103,

        "Gender" : "Female"

    },

    {

        "EmployeeID" : 214,

        "SSN" : 125473122,

        "FirstName" : "Vinicius",

        "LastName" : "Junior",

        "DateOfBirth" : "2000-01-06",

        "StartDate" : "2021-05-19",

        "LastDate" : "null",

        "City" : "Boston",

        "Country" : "MA",

        "DepartmentID" : 101,

        "Gender" : "Male"

    },

    {

        "EmployeeID" : 215,

        "SSN" : 638089122,

        "FirstName" : "Gareth",

        "LastName" : "Bale",

        "DateOfBirth" : "2000-07-11",

        "StartDate" : "2021-04-18",

        "LastDate" : "null",

        "City" : "Boston",

        "Country" : "MA",

        "DepartmentID" : 101,

        "Gender" : "Female"

    },

    {

        "EmployeeID" : 216,

        "SSN" : 125789122,

        "FirstName" : "Jay",

        "LastName" : "park",

        "DateOfBirth" : "2000-03-11",

        "StartDate" : "2021-11-18",

        "LastDate" : "null",

        "City" : "Boston",

        "Country" : "MA",

        "DepartmentID" : 102,

        "Gender" : "Female"

    },

    {

        "EmployeeID" : 217,

        "SSN" : 786549122,

        "FirstName" : "Luka",

        "LastName" : "Modric",

        "DateOfBirth" : "1989-09-12",

        "StartDate" : "2019-04-18",

        "LastDate" : "2022-02-19",

        "City" : "Boston",

        "Country" : "MA",

        "DepartmentID" : 102,

        "Gender" : "Male"

    },

    {

        "EmployeeID" : 218,

        "SSN" : 123852789,

        "FirstName" : "Marco",

        "LastName" : "Asensio",

        "DateOfBirth" : "1998-04-16",

        "StartDate" : "2018-08-16",

        "LastDate" : "null",

        "City" : "Boston",

        "Country" : "MA",

        "DepartmentID" : 104,

        "Gender" : "Female"

    }

]

Collection: Salary

Documents:

[

    {

        "ExpenseID" : 1,

        "EmployeeID" : 211,

        "SalaryStartDate" : "2020-10-11",

        "SalaryLastDate" : "2022-10-30",

        "NumberOfHours" : 12,

        "Wage" : 12000

    },

    {

        "ExpenseID" : 2,

        "EmployeeID" : 212,

        "SalaryStartDate" : "2020-06-11",

        "SalaryLastDate" : "2022-10-21",

        "NumberOfHours" : 12,

        "Wage" : 10000

    },

    {

        "ExpenseID" : 3,

        "EmployeeID" : 214,

        "SalaryStartDate" : "2020-10-11",

        "SalaryLastDate" : "2022-10-30",

        "NumberOfHours" : 10,

        "Wage" : 9000

    },

    {

        "ExpenseID" : 4,

        "EmployeeID" : 213,

        "SalaryStartDate" : "2020-11-11",

        "SalaryLastDate" : "2022-11-22",

        "NumberOfHours" : 11,

        "Wage" : 8000

    },

    {

        "ExpenseID" : 5,

        "EmployeeID" : 215,

        "SalaryStartDate" : "2022-09-01",

        "SalaryLastDate" : "2022-09-30",

        "NumberOfHours" : 12,

        "Wage" : 12000

    },

    {

        "ExpenseID" : 6,

        "EmployeeID" : 216,

        "SalaryStartDate" : "2022-04-20",

        "SalaryLastDate" : "2022-05-20",

        "NumberOfHours" : 11,

        "Wage" : 11000

    },

    {

        "ExpenseID" : 7,

        "EmployeeID" : 217,

        "SalaryStartDate" : "2022-03-10",

        "SalaryLastDate" : "2022-04-10",

        "NumberOfHours" : 10,

        "Wage" : 10000

    },

    {

        "ExpenseID" : 8,

        "EmployeeID" : 218,

        "SalaryStartDate" : "2022-02-11",

        "SalaryLastDate" : "2022-02-21",

        "NumberOfHours" : 11,

        "Wage" : 9000

    }

]

Collection: Subway

Documents:

[

    {

        "vehicleID" : 8109,

        "SubwayType" : "Green",

        "TicketPrice" : 2.4

    },

    {

        "vehicleID" : 8110,

        "SubwayType" : "Orange",

        "TicketPrice" : 2.4

    },

    {

        "vehicleID" : 8111,

        "SubwayType" : "Red",

        "TicketPrice" : 2.4

    },

    {

        "vehicleID" : 8112,

        "SubwayType" : "Orange",

        "TicketPrice" : 2.4

    },

    {

        "vehicleID" : 8113,

        "SubwayType" : "Red",

        "TicketPrice" : 2.4

    },

    {

        "vehicleID" : 8114,

        "SubwayType" : "Green",

        "TicketPrice" : 2.4

    },

    {

        "vehicleID" : 8115,

        "SubwayType" : "Green",

        "TicketPrice" : 2.4

    },

    {

        "vehicleID" : 8116,

        "SubwayType" : "Red",

        "TicketPrice" : 2.4

    }

]

**Queries:**

1. Query to find employee with id 211

mbta.employee.aggregate([

$match : {EmployeeID : 211}

])

A screenshot of a computer

Description automatically generated

1. Query to find employees with Employeeid > 215

mbta.employee.aggregate([

$match : {EmployeeID : {$gt : 215}}

])

Graphical user interface, text, application

Description automatically generated

1. Query to match all the male employees and project only employeeid, country and gender

Graphical user interface, text, application

Description automatically generated

Graphical user interface, text, application, email

Description automatically generated