**Mongodb Query Scripts**

**Simple Question 1:**

db.getCollection('v9').aggregate([

{$match:{\_id:891}},

{$project:{users:{$setUnion:[new Array("$questionuser"),new Array("$accepteduser"),"$unaccepteduser"]}}}

])

**Simple Question 2:**

db.getCollection('v9').aggregate([

{$unwind:"$tags"},

{$match:{tags:"address"}},

{$sort:{"ViewCount":-1}},

{$limit:1}

])

**Analytic Question 1:**

db.getCollection('v9').aggregate([

{$unwind:"$tags"},

{$match:{tags:"usa"}},

{$unwind:"$acceptedanswer"},

{$project:{tags:1,Title:1,easy:{$subtract:["$acceptedanswer.CreationDate", "$CreationDate"]}}},

{$sort:{"easy":1}},

{$limit:1}

])

**Analytic Question 2:**

db.getCollection('v9').aggregate([

{$project:{tags:1,"question":{CreationDate:"$CreationDate", userid:"$questionuser.Id"},

acceptedanswer:{CreationDate:"$acceptedanswer.CreationDate", userid:"$accepteduser.Id"},

"unacceptedanswer.CreationDate":1, "unacceptedanswer.OwnerUserId":1}},

{$project:{\_id:1,tags:1,users:{$setUnion:["$unacceptedanswer", new Array("$acceptedanswer"),new Array("$question")]}}},

{$unwind:"$tags"},

{$unwind:"$users"},

{$match:{"users.CreationDate":{$gt: new Date("2013-07-15"),$lt:new Date("2013-07-20")}}},

{$group:{\_id:"$tags", count:{$sum:1}}},

{$sort:{"count":-1}},

{$limit:5}

])

**Analytic Question 3:**

db.getCollection('v9').aggregate([

{$unwind:"$tags"},

{$match:{tags:"usa"}},

{$group:{\_id:"$accepteduser.Id",count:{$sum:1},questions:{$addToSet:"$Title"}}},

{$match:{\_id:{$ne:null}}},

{$sort:{"count":-1}},

{$limit:1}

])

**Analytic Question 4:**

db.getCollection('v9').aggregate([

{$match:{"accepteduser.Id":35}},

{$unwind:"$tags"},

{$group:{\_id:"$tags", questions:{$addToSet:"$\_id"},count:{$sum:1}}},

{$match:{count:{$gte:1}}},

{$project:{topic:"$\_id"}},

{$group:{\_id:null, topics:{$addToSet:"$topic"}}},

{$project:{\_id:"$topics"}},

{$unwind:"$\_id"},

{$lookup:{

from:"v9",

localField:"\_id",

foreignField:"tags",

as:"god"

}},

{$project:{questions:"$god"}},

{$unwind:"$questions"},

{$project:{questions:1,\_id:0}},

{$project:{\_id:"$questions.\_id",CreationDate:"$questions.CreationDate", ViewCount:"$questions.ViewCount",Title:"$questions.Title",tags:"$questions.tags",

unacceptedanswer:"$questions.unacceptedanswer",acceptedvote:"$questions.acceptedvote",unacceptedvote:"$questions.unacceptedvote",

unaccepteduser:"$questions.unaccepteduser",acceptedanswer:"$questions.acceptedanswer",questionuser:"$questions.questionuser",accepteduser:"$questions.accepteduser",

decisionday:"$questions.decisionday"}},

{$match:{acceptedanswer:null}},

{$project:{\_id:{id:"$\_id",creationdate:"$CreationDate"},id:"$\_id", creationdate:"$CreationDate"}},

{$group:{\_id:"$\_id"}},

{$project:{\_id:"$\_id.id",creationdate:"$\_id.creationdate"}},

{$sort:{CreationDate:-1}},

{$limit:5}

])

**Analytic Question 5:**

**[1]:** db.getCollection('v9').aggregate([

{$project:{votes:{$concatArrays:["$acceptedvote","$unacceptedvote"]}}},

{$unwind:"$votes"},

{$match:{"votes.VoteTypeId":2}},

{$group:{\_id:"$\_id",count:{$sum:1}}},

{$match:{count:{$gte:10}}},

{$lookup:{

from:"v9",

localField:"\_id",

foreignField:"\_id",

as :"questions"

}},

{$unwind:"$questions"},

{$project:{\_id:"$questions.\_id",CreationDate:"$questions.CreationDate", ViewCount:"$questions.ViewCount",Title:"$questions.Title",tags:"$questions.tags",

unacceptedanswer:"$questions.unacceptedanswer",acceptedvote:"$questions.acceptedvote",unacceptedvote:"$questions.unacceptedvote",

unaccepteduser:"$questions.unaccepteduser",acceptedanswer:"$questions.acceptedanswer",questionuser:"$questions.questionuser",accepteduser:"$questions.accepteduser",

decisionday:"$questions.decisionday"}},

{$project:{tags:1,acceptedvote:1,decisionday:1,total:{$size:"$acceptedvote"}}},

{$unwind:"$acceptedvote"},

{$match:{"acceptedvote.VoteTypeId":2}},

{$project:{difference:{$subtract:["$acceptedvote.CreationDate","$decisionday"]},tags:1,acceptedvote:1,total:1}},

{$match:{difference:{$gt:0}}},

{$group:{\_id:"$\_id",tags:{$addToSet:"$tags"},total:{$addToSet:"$total"},amount:{$sum:1}}},

{$project:{amount:1,total:{$arrayElemAt:["$total",0]},tags:{$arrayElemAt:["$tags",0]}}},

{$project:{tags:1, percentage:{$divide:["$amount","$total"]}}},

{$sort:{"percentage":-1}},

{$limit:1}

])

**[2]:**db.getCollection('v9').aggregate([

{$project:{votes:{$concatArrays:["$acceptedvote","$unacceptedvote"]}}},

{$unwind:"$votes"},

{$match:{"votes.VoteTypeId":2}},

{$group:{\_id:"$\_id",count:{$sum:1}}},

{$match:{count:{$gte:10}}},

{$lookup:{

from:"v9",

localField:"\_id",

foreignField:"\_id",

as :"questions"

}},

{$unwind:"$questions"},

{$project:{\_id:"$questions.\_id",CreationDate:"$questions.CreationDate", ViewCount:"$questions.ViewCount",Title:"$questions.Title",tags:"$questions.tags",

unacceptedanswer:"$questions.unacceptedanswer",acceptedvote:"$questions.acceptedvote",unacceptedvote:"$questions.unacceptedvote",

unaccepteduser:"$questions.unaccepteduser",acceptedanswer:"$questions.acceptedanswer",questionuser:"$questions.questionuser",accepteduser:"$questions.accepteduser",

decisionday:"$questions.decisionday"}},

{$project:{tags:1,unacceptedvote:1,decisionday:1,total:{$size:"$unacceptedvote"}}},

{$unwind:"$unacceptedvote"},

{$match:{"unacceptedvote.VoteTypeId":2}},

{$project:{difference:{$subtract:["$unacceptedvote.CreationDate","$decisionday"]},tags:1,unacceptedvote:1,total:1}},

{$match:{difference:{$gt:0}}},

{$group:{\_id:"$\_id",tags:{$addToSet:"$tags"},total:{$addToSet:"$total"},amount:{$sum:1}}},

{$project:{amount:1,total:{$arrayElemAt:["$total",0]},tags:{$arrayElemAt:["$tags",0]}}},

{$project:{tags:1, percentage:{$divide:["$amount","$total"]}}},

{$sort:{"percentage":-1}},

{$limit:1}

])

**Analytic Question 6:**

db.getCollection('v9').aggregate([

{$project:{questionuser:"$questionuser.Id",accepteduser:"$accepteduser.Id", unaccepteduser:"$unaccepteduser.Id"}},

{$project:{users:{$setUnion:[new Array("$questionuser"),new Array("$accepteduser"),"$unaccepteduser"]}}},

{$match:{users:18}},

{$unwind:"$users"},

{$match:{users:{$ne:18}}},

{$group:{\_id:"$users",count:{$sum:1}}},

{$sort:{"count":-1}},

{$match:{\_id:{$ne:null}}},

{$limit:5}

])