Agregacion Usados en el quiz practico

1.) Aprobados segun la materia

[

{

$unwind:

/\*\*

\* path: Path to the array field.

\* includeArrayIndex: Optional name for index.

\* preserveNullAndEmptyArrays: Optional

\* toggle to unwind null and empty values.

\*/

{

path: "$asignaturas"

}

},

{

$match:

/\*\*

\* query: The query in MQL.

\*/

{

"asignaturas.nombre": "Cálculo"

}

},

{

$group:

/\*\*

\* \_id: The id of the group.

\* fieldN: The first field name.

\*/

{

\_id: null,

total: {

$sum: 1

},

aprobaron: {

$sum: {

$cond: [

{

$gte: [

"$asignaturas.calificacion",

3.0

]

},

1,

0

]

}

}

}

},

{

$project:

/\*\*

\* specifications: The fields to

\* include or exclude.

\*/

{

\_id: 0,

porcentaje\_aprobados: {

$multiply: [

{

$divide: ["$aprobaron", "$total"]

},

100

]

}

}

}

]

2.) Cantidad de estudiantes para cada estado de notas apagar groups

[

{

$project:

/\*\*

\* specifications: The fields to

\* include or exclude.

\*/

{

departamento: 1,

promedio: {

$round: [

{

$avg: "$asignaturas.calificacion"

},

1

]

}

}

},

// {

// $group:

// /\*\*

// \* \_id: The id of the group.

// \* fieldN: The first field name.

// \*/

// {

// \_id: "$departamento",

// total\_estado: {

// $sum: {

// $cond: [

// {

// $lt: ["$promedio", 2.7]

// },

// 1,

// 0

// ]

// }

// }

// }

// }

// {

// $group:

// /\*\*

// \* \_id: The id of the group.

// \* fieldN: The first field name.

// \*/

// {

// \_id: "$departamento",

// total\_estado: {

// $sum: {

// $cond: [

// {

// $and: [

// {

// $gt: ["$promedio", 2.7]

// },

// {

// $lt: ["$promedio", 3.2]

// }

// ]

// },

// 1,

// 0

// ]

// }

// }

// }

// }

{

$group:

/\*\*

\* \_id: The id of the group.

\* fieldN: The first field name.

\*/

{

\_id: "$departamento",

total\_estado: {

$sum: {

$cond: [

{

$gte: ["$promedio", 3.2]

},

1,

0

]

}

}

}

}

]

3.) Promedio pfu por departamento sin importar los creditos

[

{

$project:

/\*\*

\* specifications: The fields to

\* include or exclude.

\*/

{

departamento: 1,

promedio\_pond: {

$round: [

{

$avg: "$asignaturas.calificacion"

},

1

]

}

}

},

{

$group:

/\*\*

\* \_id: The id of the group.

\* fieldN: The first field name.

\*/

{

\_id: "$departamento",

total: {

$sum: 1

},

total\_pfu: {

$sum: {

$cond: [

{

$lt: ["$promedio\_pond", 2.7]

},

1,

0

]

}

}

}

},

{

$project:

/\*\*

\* specifications: The fields to

\* include or exclude.

\*/

{

\_id: 1,

total: 1,

total\_pfu: 1,

porcentaje\_pfu: {

$multiply: [

{

$divide: ["$total\_pfu", "$total"]

},

100

]

}

}

}

]

4.) Total pfu Importando los creditos por asignatura

[

{

$project:

/\*\*

\* specifications: The fields to

\* include or exclude.

\*/

{

total\_creditos: {

$sum: "$asignaturas.creditos"

},

suma\_pond: {

$sum: {

$map: {

input: "$asignaturas",

as: "asignatura",

in: {

$multiply: [

"$$asignatura.calificacion",

"$$asignatura.creditos"

]

}

}

}

}

}

},

{

$project:

/\*\*

\* specifications: The fields to

\* include or exclude.

\*/

{

promedio: {

$round: [

{

$divide: [

"$suma\_pond",

"$total\_creditos"

]

},

1

]

}

}

},

{

$match:

/\*\*

\* query: The query in MQL.

\*/

{

promedio: {

$lt: 2.7

}

}

},

{

$count:

/\*\*

\* Provide the field name for the count.

\*/

"total"

}

]

5.) Total pfu sin importar creditos por materia

[

{

$project:

/\*\*

\* specifications: The fields to

\* include or exclude.

\*/

{

promedio\_pond: {

$round: [

{

$avg: "$asignaturas.calificacion"

},

1

]

}

}

},

{

$match:

/\*\*

\* query: The query in MQL.

\*/

{

promedio\_pond: {

$lt: 2.7

}

}

},

{

$count:

/\*\*

\* Provide the field name for the count.

\*/

"total"

}

]

6.) Sub textos ejemplo correo

[

{

$group:

/\*\*

\* \_id: The id of the group.

\* fieldN: The first field name.

\*/

{

\_id: null,

total: {

$sum: 1

},

total\_cor: {

$sum: {

$cond: [

{

$regexMatch: {

input: "$correo",

regex: "@correo.uis.edu.co$"

}

},

1,

0

]

}

}

}

},

{

$project:

/\*\*

\* specifications: The fields to

\* include or exclude.

\*/

{

\_id: 0,

total: 1,

total\_cor: 1,

porcentaje: {

$multiply: [

{

$divide: ["$total\_cor", "$total"]

},

100

]

}

}

}

]

7.) Total y round

[

{

$group:

/\*\*

\* \_id: The id of the group.

\* fieldN: The first field name.

\*/

{

\_id: "$departamento",

total: {

$avg: "$horas\_dormidas\_x\_noche\_prom"

}

}

},

{

$sort:

/\*\*

\* Provide any number of field/order pairs.

\*/

{

\_id: -1

}

},

{

$project:

/\*\*

\* specifications: The fields to

\* include or exclude.

\*/

{

total: {

$round: ["$total", 3]

}

}

}

]