1. Create a database in MongoDB Compass based on one of the courses you are currently taking in the DHDA Program (**except** for DHDS110). Name it appropriately.

**>**use DHDH110

**<**'switched to db DHDH110'

1. Create three collections within this database:

**Content            Learning Plans            PATS**

**Content** collection fields:

**coursecode    startdate    weeknum    description    URL    mediatype    passcode    platform    resourcetype  file**

keep **file**empty ("") for now – this will be a place holder for new file uploads in question 3

**Learning Plans** fields:

**coursecode    startdate    title    wlpdate    weeknum    live    learningoutcomes    pats    topics**

**For learning outcomes, list them as an array**

**PATS**fields:

**coursecode    startdate    patid    title    value    duedate**

1. For each of the collections, create a set of data validation rules – use your creativity here.
2. For each collection, try to capture all the information necessary, following your validation rules, but limit it to a maximum of 20 documents using JSON key:value pair entries

***Paste your JSON code for the above, along with the outputs from MongoDB, into a Word Document with the assignment questions embedded.***

**>**db.content.insertMany([{coursecode: "DHDH110",startdate: { "$date": "09/06/2022" },weeknum: 1,description: "Course Outline",URL: "https://michener.blackboard.com/bbcswebdav/pid-682476-dt-content-rid-5270252\_1/xid-5270252\_1",mediatype: "PDF",passcode: "NA",platform: "Chrome",resourcetype: "Outline",file: ""},

{coursecode: "DHDH110",startdate: { "$date": "09/06/2022" },weeknum: 1,description: "Weekly Questions",URL: "https://michener.blackboard.com/bbcswebdav/pid-682476-dt-content-rid-5072298\_1/xid-5072298\_1",mediatype: ".docx",passcode: "NA",platform: "Word",resourcetype: "Study material",file: ""},

{coursecode: "DHDH110",startdate: { "$date": "09/06/2022" },weeknum: 1,description: "Canada: International Health Care System Profile",URL: "https://www.commonwealthfund.org/international-health-policy-center/countries/canada",mediatype: "webpage",passcode: "NA",platform: "Chrome",resourcetype: "Article",file: ""},

{coursecode: "DHDH110",startdate: { "$date": "09/06/2022" },weeknum: 1,description: "Provincial and Territorial Medicare in Canada",URL: "https://www.youtube.com/watch?v=n0Y5Wx\_qFSs",mediatype: "video",passcode: "NA",platform: "Youtube",resourcetype: "Video",file: ""},

{coursecode: "DHDH110",startdate: { "$date": "09/06/2022" },weeknum: 1,description: "Canada's Healthcare System Explained",URL: "https://www.youtube.com/watch?v=1TPr3h-UDA0",mediatype: "video",passcode: "NA",platform: "Youtube",resourcetype: "Video",file: ""},

{coursecode: "DHDH110",startdate: { "$date": "09/06/2022" },weeknum: 1,description: "Debating Ontario's Health Care Overhaul TVO",URL: "https://www.youtube.com/watch?v=79ACYaor4qE",mediatype: "video",passcode: "NA",platform: "Youtube",resourcetype: "Video",file: ""},

{coursecode: "DHDH110",startdate: { "$date": "09/06/2022" },weeknum: 1,description: "Week 1 Synthesis Lecture",URL: "https://web.microsoftstream.com/video/f5dac940-5a1f-41c0-b689-a96ef704add8",mediatype: "video",passcode: "NA",platform: "Microsoft Stream",resourcetype: "Lecture",file: ""},

{coursecode: "DHDH110",startdate: { "$date": "09/12/2022" },weeknum: 2,description: "Weekly Questions",URL: "https://michener.blackboard.com/bbcswebdav/pid-682477-dt-content-rid-5072301\_1/xid-5072301\_1",mediatype: ".docx",passcode: "NA",platform: "Word",resourcetype: "Study material",file: ""},

{coursecode: "DHDH110",startdate: { "$date": "09/12/2022" },weeknum: 2,description: "Canada's universal health-care system: achieving its potential",URL: "https://michener.blackboard.com/bbcswebdav/pid-682477-dt-content-rid-5072300\_1/xid-5072300\_1",mediatype: "PDF",passcode: "NA",platform: "Chrome",resourcetype: "Article",file: ""},

{coursecode: "DHDH110",startdate: { "$date": "09/12/2022" },weeknum: 2,description: "Canada Health Act ",URL: "https://www.youtube.com/watch?v=Aocl3HwUBT4",mediatype: "video",passcode: "NA",platform: "Youtube",resourcetype: "Video",file: ""},

{coursecode: "DHDH110",startdate: { "$date": "09/12/2022" },weeknum: 2,description: "The drug approval process in Canada",URL: "https://www.youtube.com/watch?v=p5HiVVI2Ek4&t=2s",mediatype: "video",passcode: "NA",platform: "Youtube",resourcetype: "Video",file: ""},

{coursecode: "DHDH110",startdate: { "$date": "09/12/2022" },weeknum: 2,description: "Approval and public listing of drugs in Canada",URL: "https://www.youtube.com/watch?v=fXsC-gfhuKM",mediatype: "video",passcode: "NA",platform: "Youtube",resourcetype: "Video",file: ""},

{coursecode: "DHDH110",startdate: { "$date": "09/12/2022" },weeknum: 2,description: "Week 2 Synthesis Lecture",URL: "https://web.microsoftstream.com/video/e8695902-0de9-4183-b50a-84a0b5901f48",mediatype: "video",passcode: "NA",platform: "Microsoft Stream",resourcetype: "Lecture",file: ""},

{coursecode: "DHDH110",startdate: { "$date": "09/19/2022" },weeknum: 3,description: "Weekly Questions",URL: "https://michener.blackboard.com/bbcswebdav/pid-682478-dt-content-rid-5072303\_1/xid-5072303\_1",mediatype: ".docx",passcode: "NA",platform: "Word",resourcetype: "Study material",file: ""},

{coursecode: "DHDH110",startdate: { "$date": "09/19/2022" },weeknum: 3,description: "Canada: Health system review",URL: "https://apps.who.int/iris/bitstream/handle/10665/336311/HiT-22-3-2020-eng.pdf",mediatype: "PDF",passcode: "NA",platform: "Chrome",resourcetype: "Article",file: ""},

{coursecode: "DHDH110",startdate: { "$date": "09/19/2022" },weeknum: 3,description: "Private vs public healthcare",URL: "https://www.youtube.com/watch?v=CIqLzYsx1Kk",mediatype: "video",passcode: "NA",platform: "Youtube",resourcetype: "Video",file: ""},

{coursecode: "DHDH110",startdate: { "$date": "09/19/2022" },weeknum: 3,description: "Week 3 Synthesis Lecture",URL: "https://web.microsoftstream.com/video/da988574-1208-474f-be2d-3b215fab8f0e",mediatype: "video",passcode: "NA",platform: "Microsoft Stream",resourcetype: "Lecture",file: ""},

{coursecode: "DHDH110",startdate: { "$date": "10/03/2022" },weeknum: 5,description: "Weekly Questions",URL: "https://michener.blackboard.com/bbcswebdav/pid-682481-dt-content-rid-5072306\_1/xid-5072306\_1",mediatype: ".docx",passcode: "NA",platform: "Word",resourcetype: "Study material",file: ""},

{coursecode: "DHDH110",startdate: { "$date": "10/03/2022" },weeknum: 5,description: "Four areas od focus that should help drive primary care reform",URL: "https://www.youtube.com/watch?v=MHTwtbtq\_sU",mediatype: "video",passcode: "NA",platform: "Youtube",resourcetype: "Video",file: ""},

{coursecode: "DHDH110",startdate: { "$date": "10/03/2022" },weeknum: 5,description: "Andre Picard: A Pragmatic approach to solving healthcare ",URL: "https://itunes.apple.com/WebObjects/MZStore.woa/wa/viewPodcast?id=1478899917&i=1000463215803",mediatype: "audio",passcode: "NA",platform: "Apple Podcasts",resourcetype: "Podcast ",file: ""},])

**<**{ acknowledged: true,

insertedIds:

{ '0': ObjectId("63531dab44175bcf2b19636c"),

'1': ObjectId("63531dab44175bcf2b19636d"),

'2': ObjectId("63531dab44175bcf2b19636e"),

'3': ObjectId("63531dab44175bcf2b19636f"),

'4': ObjectId("63531dab44175bcf2b196370"),

'5': ObjectId("63531dab44175bcf2b196371"),

'6': ObjectId("63531dab44175bcf2b196372"),

'7': ObjectId("63531dab44175bcf2b196373"),

'8': ObjectId("63531dab44175bcf2b196374"),

'9': ObjectId("63531dab44175bcf2b196375"),

'10': ObjectId("63531dab44175bcf2b196376"),

'11': ObjectId("63531dab44175bcf2b196377"),

'12': ObjectId("63531dab44175bcf2b196378"),

'13': ObjectId("63531dab44175bcf2b196379"),

'14': ObjectId("63531dab44175bcf2b19637a"),

'15': ObjectId("63531dab44175bcf2b19637b"),

'16': ObjectId("63531dab44175bcf2b19637c"),

'17': ObjectId("63531dab44175bcf2b19637d"),

'18': ObjectId("63531dab44175bcf2b19637e"),

'19': ObjectId("63531dab44175bcf2b19637f") } }

**>**db.LearningPlans.insertMany([{coursecode: "DHDH110",startdate: { "$date": "09/06/2022" },title: "Structure and Governance of Canada's Health System: Part 1 - Provincial and Territorial Governments",wlpdate: { "$date": "09/07/2022" },weeknum: 1,live: "Yes",learningoutcomes: ["Investigate the role of provincial and territorial ministries and departments and health",

"Investigate the role of regional authorities and local governments"],pats: "NA",topics: "Provincial and territorial Canadian health system structure and governance",},

{coursecode: "DHDH110",startdate: { "$date": "09/06/2022" },title: "Structure and Governance of Canada's Health System: Part 2 - Federal Government and Pan-Canadian Institutions",wlpdate: { "$date": "09/12/2022" },weeknum: 2,live: "No",learningoutcomes: ["Investigate the role of the federal government and pan-Canadian institutions",

"Examine the process of regulating drugs, medical devices, and natural health products"],pats: "NA",topics: "Federal Canadian Healthcare system structure and roles",},

{coursecode: "DHDH110",startdate: { "$date": "09/06/2022" },title: "Health Financing in Canada",wlpdate: { "$date": "09/19/2022" },weeknum: 3,live: "No",learningoutcomes: ["Assess various models of healthcare funding in Canada, including federal, provincial, territorial and private",

"Investigate how Canadian health professionals are regulated and organized"],pats: "PAT2",topics: "Health system financing, looking at public vs private",},

{coursecode: "DHDH110",startdate: { "$date": "09/06/2022" },title: "Wrap-up and Review of Weeks 1-3",wlpdate: { "$date": "09/26/2022" },weeknum: 4,live: "Yes",learningoutcomes: ["NA"],pats: "NA",topics: "Reviewal of previous three weeks",},

{coursecode: "DHDH110",startdate: { "$date": "09/06/2022" },title: "Delivery in Canada: Public and Private",wlpdate: { "$date": "10/03/2022" },weeknum: 5,live: "No",learningoutcomes: ["Examine how care delivery is distributed between public, private, and not-for-profit agencies",

"Differentiate the role of hospitals, long-term-care, clinics, and other community resources",

"Identify Canadian models for the delivery of dental, vision, mental health, and complementary and alternative medicine"],pats: "NA",topics: "Details on healthcare delivery within Canada from both the public and private perspective",},

{coursecode: "DHDH110",startdate: { "$date": "09/06/2022" },title: "Fall Reading Week",wlpdate: { "$date": "10/10/2022" },weeknum: 6,live: "No",learningoutcomes: ["NA"],pats: "NA",topics: "Reading week",},

{coursecode: "DHDH110",startdate: { "$date": "09/06/2022" },title: "Indigenous Health",wlpdate: { "$date": "10/17/2022" },weeknum: 7,live: "No",learningoutcomes: ["examine how Indigenous health systems are structured and delivered in Canada"],pats: "PAT3",topics: "Healthcare and policy pertaining to Indigenous populations within Canada",},

{coursecode: "DHDH110",startdate: { "$date": "09/06/2022" },title: "Wrap-up and Review of Weeks 5-7",wlpdate: { "$date": "10/24/2022" },weeknum: 8,live: "Yes",learningoutcomes: ["NA"],pats: "NA",topics: "Reviewal of previous three weeks",},

{coursecode: "DHDH110",startdate: { "$date": "09/06/2022" },title: "Comparing Healthcare Systems",wlpdate: { "$date": "10/31/2022" },weeknum: 9,live: "No",learningoutcomes: ["Identify basic health system types found internationally",

"Assess how and why Canada is compared to other countries",

"Compare Canada to other countries in terms of health spending, financing sources, universality, population health outcomes, quality and avoidable deaths, coordination of care, and patient satisfaction"],pats: "PAT4",topics: "Comparing healthcare systems of different countries",},])

**<**{ acknowledged: true,

insertedIds:

{ '0': ObjectId("63531ff444175bcf2b196380"),

'1': ObjectId("63531ff444175bcf2b196381"),

'2': ObjectId("63531ff444175bcf2b196382"),

'3': ObjectId("63531ff444175bcf2b196383"),

'4': ObjectId("63531ff444175bcf2b196384"),

'5': ObjectId("63531ff444175bcf2b196385"),

'6': ObjectId("63531ff444175bcf2b196386"),

'7': ObjectId("63531ff444175bcf2b196387"),

'8': ObjectId("63531ff444175bcf2b196388") } }

**>**db.PATS.insertMany([{coursecode: "DHDH110",startdate: { "$date": "09/06/2022" },patid: "PAT1",title: "Engagement in Learning",value: "0.05",duedate: { "$date": "11/28/2022" }},

{coursecode: "DHDH110",startdate: { "$date": "09/19/2022" },patid: "PAT2",title: "Briefing Note",value: "0.15",duedate: { "$date": "09/25/2022" }},

{coursecode: "DHDH110",startdate: { "$date": "10/21/2022" },patid: "PAT3",title: "Quiz 1",value: "0.2",duedate: { "$date": "10/23/2022" }},

{coursecode: "DHDH110",startdate: { "$date": "10/31/2022" },patid: "PAT4",title: "Position Paper ",value: "0.25",duedate: { "$date": "11/06/2022" }},

{coursecode: "DHDH110",startdate: { "$date": "11/16/2022" },patid: "PAT5",title: "Group Debate",value: "0.15",duedate: { "$date": "11/16/2022" }},

{coursecode: "DHDH110",startdate: { "$date": "12/02/2022" },patid: "PAT6",title: "Quiz 2",value: "0.2",duedate: { "$date": "12/04/2022" }}])

**<**{ acknowledged: true,

insertedIds:

{ '0': ObjectId("6353212044175bcf2b196392"),

'1': ObjectId("6353212044175bcf2b196393"),

'2': ObjectId("6353212044175bcf2b196394"),

'3': ObjectId("6353212044175bcf2b196395"),

'4': ObjectId("6353212044175bcf2b196396"),

'5': ObjectId("6353212044175bcf2b196397") } }

**>**db.runCommand({

collMod: 'content',

validator: {$jsonSchema: {

bsonType: 'object',

required: ['coursecode','startdate','weeknum','description','URL','mediatype','passcode','platform','resourcetype','file'],

properties: {

coursecode: {

bsonType: 'string',

description: 'must be of type string and is required'

},

startdate: {

bsonType: 'object',

description: 'must be of type object and is required'

},

weeknum: {

bsonType: 'int',

description: 'must be of type int and is required'

},

description: {

bsonType: 'string',

description: 'must be of type string and is required'

},

URL: {

bsonType: 'string',

description: 'must be of type string and is required'

},

mediatype: {

bsonType: 'string',

description: 'must be of type string and is required'

},

passcode: {

bsonType: 'string',

description: 'must be of type string and is required'

},

platform: {

bsonType: 'string',

description: 'must be of type string and is required'

},

resourcetype: {

bsonType: 'string',

description: 'must be of type string and is required'

}

}

}}

})

**<**{ ok: 1 }

**>**db.runCommand({

collMod: 'LearningPlans',

validator: {$jsonSchema: {

bsonType: 'object',

required: ['coursecode','startdate','title','wlpdate','weeknum','live','learningoutcomes','pats','topics'],

properties: {

coursecode: {

bsonType: 'string',

description: 'must be of type string and is required'

},

startdate: {

bsonType: 'date',

description: 'must be of type date and is required'

},

title: {

bsonType: 'string',

description: 'must be of type string and is required'

},

wlpdate: {

bsonType: 'date',

description: 'must be of type date and is required'

},

weeknum: {

bsonType: 'int',

description: 'must be of type int and is required'

},

live: {

bsonType: 'string',

description: 'must be of type string and is required'

},

learningoutcomes: {

bsonType: 'array',

description: 'must be an array and is required',

items: {

bsonType: 'string'

}

},

pats: {

bsonType: 'string',

description: 'must be of type string and is required'

},

topics: {

bsonType: 'string',

description: 'must be of type string and is required'

},

}

}}

})

**<**{ ok: 1 }

**>**db.runCommand({

collMod: 'PATS',

validator: {$jsonSchema: {

bsonType: 'object',

required: ['coursecode','startdate','patid','title','value','duedate'],

properties: {

coursecode: {

bsonType: 'string',

description: 'must be of type string and is required'

},

startdate: {

bsonType: 'date',

description: 'must be of type date and is required'

},

patid: {

bsonType: 'string',

description: 'must be of type string and is required'

},

title: {

bsonType: 'string',

description: 'must be of type string and is required'

},

value: {

bsonType: 'int',

description: 'must be of type int and is required'

},

duedate: {

bsonType: 'date',

description: 'must be of type date and is required'

}

}

}}

})

**<**{ ok: 1 }

This next question will test your ability to learn, follow minimal instructions, and **adapt**. This is the reality of programming – I can prepare you for the present state of programming languages now – but the truth is, the languages and options will change and become more diverse in the future. You must learn to **adapt**.

1. Follow these instructions to add a field to the Content collection to house an uploaded document – this will allow you to organize files (ie. PDF, word doc) rather than just links within your database:
2. **Download 5 documents** related to the course (weekly learning plans) for which you are creating the database.
   1. **Make sure at least 2 of them are PDF files**. The rest could be anything else – Word Docs, MP4 video files, image files etc. – use your creativity
      1. ***REMEMBER where (in the Content collection) these files came from -  because you have to assign them back to individual documents***
      2. Store the files in an easily accessible directory
3. Ensure you have MongoDB Database Tools installed ([mongofiles — MongoDB Database Tools](https://www.mongodb.com/docs/database-tools/mongofiles/" \l "mongodb-binary-bin.mongofiles)). This should already be installed by default if you used the latest MongoDB version.

The set of Database Tools are stored in a directory like this:

*C:\Program Files\MongoDB\Tools\100\bin*

MongoDB Database Tools must be used within command line (ie. Windows Command Prompt or Windows PowerShell):

1. CTRL+R to open run dialog.
   1. Type CMD and press enter to open Command Prompt    OR
   2. Type powershell and press enter to open PowerShell
2. Browse to your MongoDB Database Tools directory:
   1. Type **cd** *C:\Program Files\MongoDB\Tools\100\bin*
3. Use the mongofiles command to upload a local file

The syntax for this is:

**mongofiles -d***databasename***put "***filedirectory\filenmame.extension***"**

for example:

**mongofiles -d***DHDS110***put "***C:\Users\WongAKO\Downloads\CourseOutline.pdf***"**

                        Once submitted, the file will be uploaded to the database in two folders:

**fs.files** – which stores the header information (metadata about the file)

**fs.chunks** – which stores the file as a binary document broken down into chunks – this is encrypted and cannot be accessed by looking at each chunk.

                        NOTE: To download this file again, replace "**put**" with "**get**". To delete the file, replace "**put**" with "**delete**".

                        Continue doing this for **all 5 files you downloaded** from the course **Content**collection.

1. To verify the existence of your file uploads:
   1. Use Mongosh and type:             **db.fs.files.find()**OR
   2. Use MongoDB Compass and click on your database, hit the refresh button (top left)

And to show the chunks:

1. Use Mongosh and type:             **db.fs.chunks.find({}, {data:0})**

to show the chunks without the gibberish

                        Note that within **fs.files**, the file's **object\_id**matches the **files\_id** field within fs.chunks.

                        To insert the file into documents, simply refer to these object or file ids.

1. **Update** the appropriate documents within the "Content" collection to include the actual files that you've uploaded.

Refer to them by their **object\_id** or **files\_id**

For example, in mongosh:

**Db.Content.updateOne({\_id:***ObjectId("object\_id\_of\_documen\_to\_be\_updated")***},**

**{ $set: {File:***ObjectId("object\_id\_of\_uploaded file")***} }**

**)**

1. Verify your updates using **db.Content.find()** in reference to the **object\_id** of the document you updated.

**NOTE:** In practice, you wouldn't have to do this one at a time manually. You would organize a spreadsheet or use programming in Python to arrange the origin of the document, the download link, the code used to upload the file, the code used to update the document.

***Paste your JSON code for question #3 above, along with the outputs from MongoDB, into the Word Document with the assignment questions embedded.***

**\*in Mac terminal\***

>./mongofiles -d DHDH110 put "/Users/troygloyn/desktop/mongodb/course\_docs/HiT-22-3-2020-eng.pdf"

>./mongofiles -d DHDH110 put "/Users/troygloyn/desktop/mongodb/course\_docs/Martin et al. - 2018 - Canada's universal health-care system achieving i.pdf"

>./mongofiles -d DHDH110 put "/Users/troygloyn/desktop/mongodb/course\_docs/Weekly Questions - Week 1.docx"

>./mongofiles -d DHDH110 put "/Users/troygloyn/desktop/mongodb/course\_docs/Weekly Questions - Week 3.docx"

>./mongofiles -d DHDH110 put "/Users/troygloyn/desktop/mongodb/course\_docs/Weekly Questions - Week 5.docx"

**\* MongoDB Compass\***

**>**db.fs.files.find()

**<**{ \_id: ObjectId("63532477072668eb71c8676b"),

length: 3353010,

chunkSize: 261120,

uploadDate: 2022-10-21T23:00:08.098Z,

filename: '/Users/troygloyn/desktop/mongodb/course\_docs/HiT-22-3-2020-eng.pdf',

metadata: {} }

{ \_id: ObjectId("635324a1d250e71681f75338"),

length: 3527818,

chunkSize: 261120,

uploadDate: 2022-10-21T23:00:50.077Z,

filename: '/Users/troygloyn/desktop/mongodb/course\_docs/Martin et al. - 2018 - Canada\'s universal health-care system achieving i.pdf',

metadata: {} }

{ \_id: ObjectId("635324be23e07868b9d69c28"),

length: 21355,

chunkSize: 261120,

uploadDate: 2022-10-21T23:01:18.403Z,

filename: '/Users/troygloyn/desktop/mongodb/course\_docs/Weekly Questions - Week 1.docx',

metadata: {} }

{ \_id: ObjectId("635324c222051c8f23e779c4"),

length: 22700,

chunkSize: 261120,

uploadDate: 2022-10-21T23:01:22.307Z,

filename: '/Users/troygloyn/desktop/mongodb/course\_docs/Weekly Questions - Week 3.docx',

metadata: {} }

{ \_id: ObjectId("635324c6dd5cd1c23b44f6ee"),

length: 25790,

chunkSize: 261120,

uploadDate: 2022-10-21T23:01:26.131Z,

filename: '/Users/troygloyn/desktop/mongodb/course\_docs/Weekly Questions - Week 5.docx',

metadata: {} }

**>**db.fs.chunks.find({},{data: 0})

**<**{ \_id: ObjectId("63532478072668eb71c8676c"),

files\_id: ObjectId("63532477072668eb71c8676b"),

n: 0 }

{ \_id: ObjectId("63532478072668eb71c8676d"),

files\_id: ObjectId("63532477072668eb71c8676b"),

n: 1 }

{ \_id: ObjectId("63532478072668eb71c8676e"),

files\_id: ObjectId("63532477072668eb71c8676b"),

n: 2 }

{ \_id: ObjectId("63532478072668eb71c8676f"),

files\_id: ObjectId("63532477072668eb71c8676b"),

n: 3 }

{ \_id: ObjectId("63532478072668eb71c86770"),

files\_id: ObjectId("63532477072668eb71c8676b"),

n: 4 }

{ \_id: ObjectId("63532478072668eb71c86771"),

files\_id: ObjectId("63532477072668eb71c8676b"),

n: 5 }

{ \_id: ObjectId("63532478072668eb71c86772"),

files\_id: ObjectId("63532477072668eb71c8676b"),

n: 6 }

{ \_id: ObjectId("63532478072668eb71c86773"),

files\_id: ObjectId("63532477072668eb71c8676b"),

n: 7 }

{ \_id: ObjectId("63532478072668eb71c86774"),

files\_id: ObjectId("63532477072668eb71c8676b"),

n: 8 }

{ \_id: ObjectId("63532478072668eb71c86775"),

files\_id: ObjectId("63532477072668eb71c8676b"),

n: 9 }

{ \_id: ObjectId("63532478072668eb71c86776"),

files\_id: ObjectId("63532477072668eb71c8676b"),

n: 10 }

{ \_id: ObjectId("63532478072668eb71c86777"),

files\_id: ObjectId("63532477072668eb71c8676b"),

n: 11 }

{ \_id: ObjectId("63532478072668eb71c86778"),

files\_id: ObjectId("63532477072668eb71c8676b"),

n: 12 }

{ \_id: ObjectId("635324a2d250e71681f75339"),

files\_id: ObjectId("635324a1d250e71681f75338"),

n: 0 }

{ \_id: ObjectId("635324a2d250e71681f7533a"),

files\_id: ObjectId("635324a1d250e71681f75338"),

n: 1 }

{ \_id: ObjectId("635324a2d250e71681f7533b"),

files\_id: ObjectId("635324a1d250e71681f75338"),

n: 2 }

{ \_id: ObjectId("635324a2d250e71681f7533c"),

files\_id: ObjectId("635324a1d250e71681f75338"),

n: 3 }

{ \_id: ObjectId("635324a2d250e71681f7533d"),

files\_id: ObjectId("635324a1d250e71681f75338"),

n: 4 }

{ \_id: ObjectId("635324a2d250e71681f7533e"),

files\_id: ObjectId("635324a1d250e71681f75338"),

n: 5 }

{ \_id: ObjectId("635324a2d250e71681f7533f"),

files\_id: ObjectId("635324a1d250e71681f75338"),

n: 6 }

**>**db.content.updateOne({\_id: ObjectId("63531dab44175bcf2b19637a")}, {$set: {file: ObjectId("63532477072668eb71c8676b")}})

**<**{ acknowledged: true,

insertedId: null,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0 }

**>**db.content.updateOne({\_id: ObjectId("63531dab44175bcf2b196374")}, {$set: {file: ObjectId("635324a1d250e71681f75338")}})

**<**{ acknowledged: true,

insertedId: null,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0 }

**>**db.content.updateOne({\_id: ObjectId("63531dab44175bcf2b19636d")}, {$set: {file: ObjectId("635324be23e07868b9d69c28")}})

**<**{ acknowledged: true,

insertedId: null,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0 }

**>**db.content.updateOne({\_id: ObjectId("63531dab44175bcf2b196379")}, {$set: {file: ObjectId("635324c222051c8f23e779c4")}})

**<**{ acknowledged: true,

insertedId: null,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0 }

**>**db.content.updateOne({\_id: ObjectId("63531dab44175bcf2b19637d")}, {$set: {file: ObjectId("635324c6dd5cd1c23b44f6ee")}})

**<**{ acknowledged: true,

insertedId: null,

matchedCount: 1,

modifiedCount: 1,

upsertedCount: 0 }

**>**db.content.find({\_id: ObjectId("63531dab44175bcf2b19637a")})

**<**{ \_id: ObjectId("63531dab44175bcf2b19637a"),

coursecode: 'DHDH110',

startdate: 2022-09-19T04:00:00.000Z,

weeknum: 3,

description: 'Canada: Health system review',

URL: 'https://apps.who.int/iris/bitstream/handle/10665/336311/HiT-22-3-2020-eng.pdf',

mediatype: 'PDF',

passcode: 'NA',

platform: 'Chrome',

resourcetype: 'Article',

file: ObjectId("63532477072668eb71c8676b") }

**>**db.content.find({\_id: ObjectId("63531dab44175bcf2b196374")})

**<**{ \_id: ObjectId("63531dab44175bcf2b196374"),

coursecode: 'DHDH110',

startdate: 2022-09-12T04:00:00.000Z,

weeknum: 2,

description: 'Canada\'s universal health-care system: achieving its potential',

URL: 'https://michener.blackboard.com/bbcswebdav/pid-682477-dt-content-rid-5072300\_1/xid-5072300\_1',

mediatype: 'PDF',

passcode: 'NA',

platform: 'Chrome',

resourcetype: 'Article',

file: ObjectId("635324a1d250e71681f75338") }

**>**db.content.find({\_id: ObjectId("63531dab44175bcf2b19636d")})

**<**{ \_id: ObjectId("63531dab44175bcf2b19636d"),

coursecode: 'DHDH110',

startdate: 2022-09-06T04:00:00.000Z,

weeknum: 1,

description: 'Weekly Questions',

URL: 'https://michener.blackboard.com/bbcswebdav/pid-682476-dt-content-rid-5072298\_1/xid-5072298\_1',

mediatype: '.docx',

passcode: 'NA',

platform: 'Word',

resourcetype: 'Study material',

file: ObjectId("635324be23e07868b9d69c28") }

**>**db.content.find({\_id: ObjectId("63531dab44175bcf2b196379")})

**<**{ \_id: ObjectId("63531dab44175bcf2b196379"),

coursecode: 'DHDH110',

startdate: 2022-09-19T04:00:00.000Z,

weeknum: 3,

description: 'Weekly Questions',

URL: 'https://michener.blackboard.com/bbcswebdav/pid-682478-dt-content-rid-5072303\_1/xid-5072303\_1',

mediatype: '.docx',

passcode: 'NA',

platform: 'Word',

resourcetype: 'Study material',

file: ObjectId("635324c222051c8f23e779c4") }

**>**db.content.find({\_id: ObjectId("63531dab44175bcf2b19637d")})

**<**{ \_id: ObjectId("63531dab44175bcf2b19637d"),

coursecode: 'DHDH110',

startdate: 2022-10-03T04:00:00.000Z,

weeknum: 5,

description: 'Weekly Questions',

URL: 'https://michener.blackboard.com/bbcswebdav/pid-682481-dt-content-rid-5072306\_1/xid-5072306\_1',

mediatype: '.docx',

passcode: 'NA',

platform: 'Word',

resourcetype: 'Study material',

file: ObjectId("635324c6dd5cd1c23b44f6ee") }

1. Run a query and search for documents in the Content collection where:
   1. **mediatype**is '*pdf*' AND file is not missing

**>**db.content.find({$and: [{mediatype: "PDF"}, {file: {$ne: ""}}]})

**<**{ \_id: ObjectId("63531dab44175bcf2b196374"),

coursecode: 'DHDH110',

startdate: 2022-09-12T04:00:00.000Z,

weeknum: 2,

description: 'Canada\'s universal health-care system: achieving its potential',

URL: 'https://michener.blackboard.com/bbcswebdav/pid-682477-dt-content-rid-5072300\_1/xid-5072300\_1',

mediatype: 'PDF',

passcode: 'NA',

platform: 'Chrome',

resourcetype: 'Article',

file: ObjectId("635324a1d250e71681f75338") }

{ \_id: ObjectId("63531dab44175bcf2b19637a"),

coursecode: 'DHDH110',

startdate: 2022-09-19T04:00:00.000Z,

weeknum: 3,

description: 'Canada: Health system review',

URL: 'https://apps.who.int/iris/bitstream/handle/10665/336311/HiT-22-3-2020-eng.pdf',

mediatype: 'PDF',

passcode: 'NA',

platform: 'Chrome',

resourcetype: 'Article',

file: ObjectId("63532477072668eb71c8676b") }

1. Run a query and search for documents in the Learning Plans collection where:
   1. **pats**array contains "*pat1*" (or whatever string you used to indicate PAT #1 within the course)

**>**db.LearningPlans.find({pats: "PAT1"})

**< This didn’t return any because I didn’t specify PAT1 for any of the documents, PAT1 is due Week 13 for The Health Ecosystem course.**