4.

Db.courses.insertMany([

{semester: 1, revdate: “Summer, 2022”, title: “Data Science and Analytics I”, credits: 4, hours: 48, weeks: 12, startdate: {$date: “09/06/2022”}},

{semester: 1, revdate: “Summer, 2022”, title: “Digital Health I: Empowering People”, credits: 4, hours: 48, weeks: 12, startdate: {$date: “09/06/2022”}},

{semester: 1, revdate: “Summer, 2022”, title: “The Health Ecosystem: Behind the Scenes”, credits: 4, hours: 48, weeks: 12, startdate: {$date: “09/06/2022”}}

])

5.

Db.content.insertMany([

{coursecode: “DHDS110”, startdate: {$date: “09/06/2022”}, weeknum: 1, description: “Intro to Data Science”, URL: “WongAKO-DHDS10-W1-2Slides.pdf”

, mediatype: “.pdf”, passcode: “Null”, platform: “PDF reader”, resourcetype: “Lecture Slides”},

{coursecode: “DHDS110”, startdate: {$date: “09/06/2022”}, weeknum: 2, description: “MongoDB Creating new collections and documents, querying contents”, URL: “https://www.youtube.com/watch?v=ExcRbA7fy\_A&list=PL4cUxeGkcC9h77dJ-QJlwGlZlTd4ecZOA”, mediatype: “Null”, passcode: “Null”, platform: “Youtube”, resourcetype: “Video Lession”},

{coursecode: “DHDS110”, startdate: {$date: “09/06/2022”}, weeknum: 1, description: “MongoDB Practice & Repeat”, URL: “studentsimport.json”, mediatype: “.json”, passcode: “Null”, platform: “Text Editor”, resourcetype: “dataset”}

])

6.

Db.LearningPlans.insertMany([

{coursecode: “DHDS110”, startdate: {$date: “09/06/2022”}, title: “Intro to Data Science”, wlpdate: {$date: “06/09/2022}, weeknum: 1, live: 0, learningoutcomes:

{[“Recognize the basic aims and processes associated with data science and data mining, including use of the extract, transform, and load (ETL) process and the CRISP-DM approach”, “Characterize the set of medically-related sources of data, including the types of data being collected through clinical operations, research and industry”, “Detail the properties of data and datasets including the description and exploration of data originating from different fields of study”]},

pats: “NA”, topics:

{[“Course Intro”, “What is Data Science”, “Extract, Transform, Load (ETL)”, “CRISP-DM – Developing your Business / Analysis Plan”, “Sources of Health-Related Data”, Describing your Data”]}},

{coursecode: “DHDS110”, startdate: {$date: “09/06/2022”}, title: “MongoDB Creating new collections and documents, querying contents”, wlpdate: {$date: “09/12/2022}, weeknum: 2, live: 0, learningoutcomes:

{[“Describe elements of data collection forms”, “Define data types, data formats, and types of databases”, “Create a new MongoDB document collection”, “Define arrays of items within variable definitions”, “Query document collections using various syntax”]},

pats: “PAT2”, topics:

{[“Intro to Databases & Database Structure”, “MongoDB Tutorial Series”]},

{coursecode: “DHDS110”, startdate: {$date: “09/06/2022”}, title: “MongoDB – Practice & Repeat”, wlpdate: {$date: “09/19/2022}, weeknum: 3, live: 1, learningoutcomes:

{[“Describe elements of data collection forms”, “Define data types, data formats, and types of databases”, “Create a new MongoDB document collections”, “Defining arrays of items within field values”, “Querying document collections using various syntax”]},

pats: “NA”, topics:

{[“MongoDB Demos”, “Live Lecture”, “Data Validation”]}

])

7.

Db.pats.insertMany([

{coursecode: “DHDS110”, startdate: {$date: “09/06/2022”}, patid: 1, title: “Participation in Live Sessions”, value: 10, duedate: [3,6,9,12]},

{coursecode: “DHDS110”, startdate: {$date: “09/06/2022”}, patid: 2, title: “Class Exercises”, value: 30, duedate: [2,6,9,12]

])

8.

a)

db.content.find({platform: “Youtube”})

b)

db.content.find({$and: [{mediatype: “pdf”}, {weeknum: {$lte: 2}}]})