

```
1  /* create the database */
2  use Crave2Know;
3
4
5  /* create the tables*/
6  db.createCollection('Course');
7  db.createCollection('Student');
8  db.createCollection('CourseInstance');
9  db.createCollection('Student_CourseInstance');
10 db.createCollection('Assignment');
11 db.createCollection('Student_Assignment');
12
13
14 /* INSERTing Students */
15 db.Student.insert({
16     StudentNumber: 'W0111222',
17     FirstName: 'Jill',
18     LastName: 'Hill',
19     Password: 'Jillh123',
20     Address: 'Anywhere Street',
21     PhoneNumber: '9021110000'
22 });
23
24 db.Student.insert({
25     StudentNumber: 'W0222333',
26     FirstName: 'Mike',
27     LastName: 'Pike',
28     Password: 'Pike321@',
29     Address: 'Young Street',
30     PhoneNumber: '9020001111'
31 });
32
33 db.Student.insert({
34     StudentNumber: 'W0333444',
35     FirstName: 'Steve',
36     LastName: 'Cleve',
37     Password: '@Cleve321',
38     Address: 'North Street',
39     PhoneNumber: '9021234567'
40 });
41
42
43 /* INSERTing Courses */
44 db.Course.insert({
45     CourseCode: 'DBAS1007',
46     Name: 'Data Fundamentals',
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```
47     Description: 'Introduction to Data'
48 });
49
50 db.Course.insert({
51     CourseCode: 'PROG1700',
52     Name: 'Programming',
53     Description: 'Introduction to Programming'
54 });
55
56
57 /* CREATing a new instance of the Data Fundamentals course
    */
58 db.CourseInstance.insert({
59     CourseInstanceCode: 'DBAS1007_2018',
60     StartDate: '2018-09-07',
61     EndDate: '2018-12-14',
62     CourseCode: 'DBAS1007'
63 });
64
65
66 /* CREATing a new instance of the Programming course */
67 db.CourseInstance.insert({
68     CourseInstanceCode: 'PROG1700_2019',
69     StartDate: '2019-01-04',
70     EndDate: '2019-04-24',
71     CourseCode: 'PROG1700'
72 });
73
74
75 /* Enroll Jill and Mike in the instance of the Data
    Fundamentals course and Jill and Steve in the instance of
    the Programming course */
76 db.Student_CourseInstance.insert({
77     Student_CourseInstanceID: 'SCI1',
78     StudentNumber: 'W0111222',
79     CourseInstanceCode: 'DBAS1007_2018'
80 });
81
82 db.Student_CourseInstance.insert({
83     Student_CourseInstanceID: 'SCI2',
84     StudentNumber: 'W0222333',
85     CourseInstanceCode: 'DBAS1007_2018'
86 });
87
88 db.Student_CourseInstance.insert({
89     Student_CourseInstanceID: 'SCI3',
```

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90     StudentNumber: 'W0111222',
91     CourseInstanceCode: 'PROG1700_2019'
92 });
93
94 db.Student_CourseInstance.insert({
95     Student_CourseInstanceID: 'SCI4',
96     StudentNumber: 'W0333444',
97     CourseInstanceCode: 'PROG1700_2019'
98 });
99
100
101 /* Create two assignments in the database course and one
    assignment in the programming course */
102 db.Assignment.insert({
103     AssignmentID: 'A1',
104     CourseInstanceCode: 'DBAS1007_2018'
105 });
106
107 db.Assignment.insert({
108     AssignmentID: 'A2',
109     CourseInstanceCode: 'DBAS1007_2018'
110 });
111
112 db.Assignment.insert({
113     AssignmentID: 'A3',
114     CourseInstanceCode: 'PROG1700_2019'
115 });
116
117
118 /* Give the following database assignment grades to Jill
    Assignment 1: 95 and Assignment 2: 87 */
119 db.Student_Assignment.insert({
120     Student_AssignmentID: 'SA1',
121     Grade: '95',
122     StudentNumber: 'W0111222',
123     AssignmentID: 'A1'
124 });
125
126 db.Student_Assignment.insert({
127     Student_AssignmentID: 'SA1',
128     Grade: '87',
129     StudentNumber: 'W0111222',
130     AssignmentID: 'A2'
131 });
132
133
```

```
134 /* Remove Steve from the programming course */
135 db.Student_CourseInstance.deleteOne({
136     StudentNumber: 'W0333444',
137     CourseInstanceCode: 'PROG1700_2019'
138 });
139
140
141 /* Update Jill's total grade for Programming to a 78 */
142 db.Student_CourseInstance.update({
143     StudentNumber: 'W0111222',
144     CourseInstanceCode: 'PROG1700_2019'
145 },
146 {
147     $set: {
148         TotalGrade: '78'
149     }
150 });
151
152
153 /* Display a list of all courses */
154 db.Course.find().pretty();
155
156
157 /* Display the last name of the student with the student
    number of W0333444 */
158 db.Student.find(
159     { StudentNumber: 'W0333444'},
160     {LastName: 1} );
161
162
163 /* Display a list of the assignment grades for student
    number W0111222 */
164 db.Student_Assignment.find(
165     { StudentNumber: 'W0111222'},
166     {Grade: 1} );
167
168
169 /* Display a list of courses that are being delivered
    after January 1st, 2019 */
170 db.CourseInstance.find(
171     { StartDate: { $gt: '2019-01-01' } },
172     {CourseInstanceCode: 1} );
173
```