

## CSE 382

### Exercise - Accessing database records using Linq

Use Git Project DBSetup as the starting point for this exercise. You will complete the six queries shown in blue.

Push your source code to Git and provide a 1 minute video showing your queries working.

| Student   |             |             |     |        |
|-----------|-------------|-------------|-----|--------|
| FirstName | LastName    | SSN         | GPA | Legacy |
| Bugs      | Bunny       | 111-11-1111 | 3.4 | false  |
| Marvin    | Martian     | 222-22-2222 | 3.2 | false  |
| Homer     | Simpson     | 333-33-3333 | 0.4 | true   |
| Yosemite  | Sam         | 444-44-4444 | 1.4 | false  |
| Bart      | Simpson     | 555-55-5555 | 0.9 | true   |
| Jim       | Kiper       | 666-66-6666 | 2.4 | true   |
| Elmer     | Fudd        | 777-77-7777 | 2.0 | false  |
| SpongeBob | SquarePants | 888-88-8888 | 3.2 | false  |
| Shaggy    | Rogers      | 999-99-9999 | 2.7 | false  |
| Bobby     | Hill        | 000-00-0000 | 2.7 | false  |

```
var theTable = MainPage.conn.Table<CreateDB.Student>();
```

#### Student Queries

1. `lv.ItemsSource = theTable.ToList();`
2. `lv.ItemsSource = theTable.Where(s => s.GPA >= 3.0).ToList();`
3. `lv.ItemsSource = theTable.Where(s => s.GPA >= 3.0).Select(s => s.LastName).ToList();`
4. `lv.ItemsSource = theTable.Select(s => new Tuple<string, string>(s.FirstName, s.LastName)).ToList();`
5. `lv.ItemsSource = theTable.AsEnumerable().Where(s => s.GPA >= 3.0 && s.LastName[0] == 'S').ToList();`
6. `lv.ItemsSource = theTable.OrderBy(s => s.GPA).ToList();`
7. `lv.ItemsSource = (from s in theTable where s.GPA >= 3.0 select s).ToList();`
8. Write a Linq query to display the legacy students.
9. Write a Linq query to display only the last name of legacy students.
10. Write a Linq query to display only the last name of students who are legacy students or have GPA >= 3.0.

#### User Queries

| User      |             |
|-----------|-------------|
| Name      | DateCreated |
| jsmith    | 8/1/1997    |
| jgonzales | 8/1/2000    |
| gpierce   | 8/1/2000    |
| ahinojsa  | 8/1/2005    |
| jlin      | 8/1/2005    |

|         |           |
|---------|-----------|
| lsmith  | 10/1/2005 |
| akaline | 7/1/2010  |
| prose   | 8/1/2020  |

var theTable = MainPage.conn.Table<CreateDB.User>();

1. Write a query to return all the Users
2. Write a query to return all Users whose accounts were created 2010 and after.
3. Write a query to return all Users whose username begins with a 'j'.