6/7 hw

what is the difference between ienumerable and list?

List is also implements from IEnumerable interface. IEnumerable is an interface. List is a class that defines a generic collection  
IEnumerable doesn't allow random access, where as List does allow random access using integral index.  
In term of performance, iterating values from IEnumerable is much faster than iterating values from a List.

A class that implement IEnumerable allows you to use the foreach syntax.

Basically it has a method to get the next item in the collection. It doesn't need the whole collection to be in memory and doesn't know how many items are in it, foreach just keeps getting the next item until it runs out.

This can be very useful in certain circumstances, for instance in a massive database table you don't want to copy the entire thing into memory before you start processing the rows.

Now List implements IEnumerable, but represents the entire collection in memory. If you have an IEnumerable and you call .ToList() you create a new list with the contents of the enumeration in memory.

Your linq expression returns an enumeration, and by default the expression executes when you iterate through using the foreach. An IEnumerable linq statement executes when you iterate the foreach, but you can force it to iterate sooner using .ToList().

what is the difference between ienumerable and iqueryable?

The main difference between IEnumerable and IQueryable in C# is that IQueryable queries out-of-memory data stores, while IEnumerable queries in-memory data. Moreover, IQueryable is part of .NET's System.LINQ namespace, while IEnumerable is in System.

what is the difference between Database First Approach and Code First Approach. When to use them?

In the code first approach, the programmer has to write the classes with the required properties first, while in the database first approach, the programmer has to create first the database using GUI.

The **main difference** between code first and database first approach in MVC is that the **code first allows the programmer to create**[**entity**](https://pediaa.com/what-is-the-difference-between-entity-and-attribute/#Entity)**classes with properties first, and then create the database and tables based on the defined entity classes. But, the database first allows creating the database and tables first, and then creating the entity data model using that database.**