Chapter 1 Concurrency an overview.

* **Introduction to concurrency**

1. Concurrency is doing more that one thing at the same time
2. Multithreading is a form of concurrency that uses multiple threads
3. Multithreading lives on the thread pool, a useful place to queue work
4. Thread pool enables another form of concurrency: Parallel processing
5. Parallel processing is one type of multithreading, multithreading is one type of concurrency
6. Async programming a form of concurrency that uses promises [features] or call-backs
7. Another form of concurrency is reactive programming.

* **Introduction to Async Programming**

1. Has two benefits for GUI free the main UI Thread and for server applications free the requests threads
2. When async keyword added to methods it performs double purposes

It allows await keyword within that method and signals the compiler to generate a state machine for that method

* **Introduction to Parallel programming**
* **Introduction to Reactive Programming**
* **Introduction to DataFlows**
* **Introduction to Multithreaded programming**
* **Collection of Concurrent Applications**