**Обобщённые коллекции(ICollection<T>)**

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Коллекции/ Функционал** | **List<T>** | **Stack<T>** | **Queue<T>** | **Dictionary<T>** | **SortedList<T>** | **LinkedList<T>** | **SortedSet<T>** |
| конструкторы | List<T>()  List<T>(IEnumerable<T>)  List<T>(Int32) | Stack<T>()  Stack<T>(IEnumerable<T>)  Stack<T>(Int32) | Queue<T>()  Queue<T>(IEnumerable<T>)  Queue<T>(Int32) | Dictionary<TKey,TValue>()  Dictionary<Tkey,TValue>(IDictionary<Tkey,TValue>)  Dictionary<Tkey,TValue>(IDictionary<Tkey,TValue>,IequalityCompare<Tkey>)  Dictionary<Tkey,TValue>(Ienumerable<KeyValuePair<Tkey,Tvalue>>)  Dictionary<Tkey,TValue>(IEqualityComparer<Tkey>)  Dictionary<Tkey,TValue>(Int32)  Dictionary<Tkey,TValue>(Int32,IEqualityComparer<Tkey>) | SortedList()  SortedList(Comperer)  SortedList(Comparer, Int32)  SortedList(Dictionary)  SortedList(Dictionary, IComparer)  SortedList( Int32) | LinkedList<T>()  LinkedList<T>(Ienumerable<T>) | SortedSet<T>()  SortedSet<T>(Comparer<T>)  SortedSet<T>(Ienumerable<T>)  SortedSet<T>(Ienumerable<T>, Icomparer<T>) |
| Добавление | Add() | Push() | Enqueue() | Add(K key, V value)  TryAdd(Tkey,TValue) | Add(Object, Object) | AddAfter(LinkedListNode<T>, LinkedListNode<T>)  AddAfter(LinkedListNode<T>, T)  AddBefore(LinkedListNode<T>, LinkedListNode<T>)  AddBefore(LinkedListNode<T>, T)  AddFirst(LinkedListNode<T>)  AddFirst(T)  AddLast(LinkedListNode<T>)  AddLast(T) | Add(T) |
| Удаление | Remove()  RemoveAt(Int32) | Pop()  TryPop(T) | Dequeue() | Remove(K key)  Remove(TKey, Tvalue) | Remove(Object)  RemoveAt(Int32) | Remove(T) | Remove(int)  RemoveWhere(Predicate) |
| Вставка | Insert(int index, T item) | - | - | TryAdd(K key, V value) | - | - | - |
| Чтение/взятие элемента | ToString() | Peek()  TryPeek(T)  ToString() | ToString()  Peek() | ToString() | ToString() | ToString() | ToString() |
| Сортировка | Sort() | - | - | - | - |  | По умолчанию отсортирован |
| Поиск | Find(Predicate<T>) | Contains(T) | Contains(T) | ContainsKey(Tkey)  ContainsValue(Tvalue) | ContainsValue(Object)  ContainsKey(Object)  Contains(Object) | Find(T)  FindLast(T) | Contains(T) |
| Свойства | **Capacity**  Count  Item[Int32] | Count | Count | Comparer  Count  Item[TKey]  Keys  Values | Capacity  Count  IsFixedSize  IsReadOnly  IsSynchronized  Item[Object]  Keys  SyncRoot  Values | Count  First  Last | Comparer  Count  Max  Min |

**Необобщённые коллекции(ICollection)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Название** | **Характеристики** | **Основные функции** | |
| **ArrayList** | Capacity = 0 //вместимость  Увеличение до 4-x  Увеличение вдвое  Count //кол-во элементов | TrimToSize()  Add(object)  AddRange(ICollection)  RemoveAt(int)  RemoveRange(int,int)  Insert(int,object)  InsertRange(int,Icollection)  GetRange(int,int)  IndexOf(int)  LastIndexOf()  Sort() |  |
| **Stack** | Нет обращения по индексу  Contains  LIFO | Push()  Pop()  Peek()  CopyTo()  Clear() |  |
| **Queue** | FIFO  Нет обращения по индексу | Enqueue(object)  Dequeue()  Peek() |  |
| **HashTable** | Key  Value | Add(object,object)  Remove(object)  ContainsKey(object)  ContainsValue(object) |  |
| **SortedList** | Capacity = 0 //вместимость  Увеличение до 16-ти | Add(object,object)  Remove(object)  ContainsKey(object)  ContainsValue(object) |  |