2

4

3

1

0

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1001  Tran Van  Thanh  Nam  1997  7.5 | 1002  Nguyen Thi  Bich  Nu  1998  7.2 | 1003  Nguyen Van  Giang  Nam  1996  6.4 | 1004  Bui Thi  Hong  Nu  1998  8.6 | 1005  Duong Van  Hung  Nam  1997  6.8 |

Count = 4

Thao tác xóa phần tử đầu tiên: k = 0;

Bước 1:

2

4

3

1

0

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1002  Nguyen Thi  Bich  Nu  1998  7.2 |  | 1003  Nguyen Van  Giang  Nam  1996  6.4 | 1004  Bui Thi  Hong  Nu  1998  8.6 | 1005  Duong Van  Hung  Nam  1997  6.8 |

Count = 4

Bước 2:

2

4

3

1

0

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1002  Nguyen Thi  Bich  Nu  1998  7.2 | 1003  Nguyen Van  Giang  Nam  1996  6.4 |  | 1004  Bui Thi  Hong  Nu  1998  8.6 | 1005  Duong Van  Hung  Nam  1997  6.8 |

Count = 4

Bước 3:

2

4

3

1

0

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1002  Nguyen Thi  Bich  Nu  1998  7.2 | 1003  Nguyen Van  Giang  Nam  1996  6.4 | 1004  Bui Thi  Hong  Nu  1998  8.6 |  | 1005  Duong Van  Hung  Nam  1997  6.8 |

Count = 4

Bước 4:

2

4

3

1

0

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1002  Nguyen Thi  Bich  Nu  1998  7.2 | 1003  Nguyen Van  Giang  Nam  1996  6.4 | 1004  Bui Thi  Hong  Nu  1998  8.6 | 1005  Duong Van  Hung  Nam  1997  6.8 |  |

Count = 3

Cài đặt:

int xoa(list &L, int k){

if( k <= L.count +1 && k>0)

{

for(int i = k ; i <= L.count ; i++){

L.sv[i-1] = L.sv[i];

}

--L.count;

return 1;

}else

return 0;

}

Mô tả thao tác chèn sinh viên (1006, Le Thi, Doan, Nu, 1998, 7.6) vào vị trí thứ 3 trong danh sách.

Chèn danhsach x = viên (1006, Le Thi, Doan, Nu, 1998, 7.6) tại k = 3

Bước 1:

5

2

4

3

1

0

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 1001  Tran Van  Thanh  Nam  1997  7.5 | 1002  Nguyen Thi  Bich  Nu  1998  7.2 | 1003  Nguyen Van  Giang  Nam  1996  6.4 | 1004  Bui Thi  Hong  Nu  1998  8.6 |  | 1005  Duong Van  Hung  Nam  1997  6.8 |  |

Count = 5

Bước 2:

5

2

4

3

1

0

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 1001  Tran Van  Thanh  Nam  1997  7.5 | 1002  Nguyen Thi  Bich  Nu  1998  7.2 | 1003  Nguyen Van  Giang  Nam  1996  6.4 |  | 1004  Bui Thi  Hong  Nu  1998  8.6 | 1005  Duong Van  Hung  Nam  1997  6.8 |  |

Count = 5

Bước 3:

5

2

4

3

1

0

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 1001  Tran Van  Thanh  Nam  1997  7.5 | 1002  Nguyen Thi  Bich  Nu  1998  7.2 |  | 1003  Nguyen Van  Giang  Nam  1996  6.4 | 1004  Bui Thi  Hong  Nu  1998  8.6 | 1005  Duong Van  Hung  Nam  1997  6.8 |  |

Count = 5

Bước 4:

5

2

4

3

1

0

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 1001  Tran Van  Thanh  Nam  1997  7.5 | 1002  Nguyen Thi  Bich  Nu  1998  7.2 | 1006  Le Thi  Doan  Nu  1998  7.6 | 1003  Nguyen Van  Giang  Nam  1996  6.4 | 1004  Bui Thi  Hong  Nu  1998  8.6 | 1005  Duong Van  Hung  Nam  1997  6.8 |  |

Count = 5

Mô tả thao tác sắp xếp danh sách theo chiều tăng dần của tên sinh viên bằng phương pháp lựa chọn.

Bước 1: so sánh count = 1 với count = 0

2

4

3

1

0

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1001  Tran Van  Thanh  Nam  1997  7.5 | 1002  Nguyen Thi  Bich  Nu  1998  7.2 | 1003  Nguyen Van  Giang  Nam  1996  6.4 | 1004  Bui Thi  Hong  Nu  1998  8.6 | 1005  Duong Van  Hung  Nam  1997  6.8 |

Count = 4

Đổi chỗ 2 vị trí count = 1 với count = 0

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1002  Nguyen Thi  Bich  Nu  1998  7.2 | 1001  Tran Van  Thanh  Nam  1997  7.5 | 1003  Nguyen Van  Giang  Nam  1996  6.4 | 1004  Bui Thi  Hong  Nu  1998  8.6 | 1005  Duong Van  Hung  Nam  1997  6.8 |

Count = 4

Bước 2: so sánh count = 2 lần lượt với count = 1, count = 0

1003

Nguyen Van

Giang

Nam

1996

6.4

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1002  Nguyen Thi  Bich  Nu  1998  7.2 | 1001  Tran Van  Thanh  Nam  1997  7.5 |  | 1004  Bui Thi  Hong  Nu  1998  8.6 | 1005  Duong Van  Hung  Nam  1997  6.8 |

Count = 4

1003

Nguyen Van

Giang

Nam

1996

6.4

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1002  Nguyen Thi  Bich  Nu  1998  7.2 |  | 1001  Tran Van  Thanh  Nam  1997  7.5 | 1004  Bui Thi  Hong  Nu  1998  8.6 | 1005  Duong Van  Hung  Nam  1997  6.8 |

Count = 4

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1002  Nguyen Thi  Bich  Nu  1998  7.2 | 1003  Nguyen Van  Giang  Nam  1996  6.4 | 1001  Tran Van  Thanh  Nam  1997  7.5 | 1004  Bui Thi  Hong  Nu  1998  8.6 | 1005  Duong Van  Hung  Nam  1997  6.8 |

Count = 4

Bước 3: so sánh count = 3 với count = 2, count = 1, count = 0

1004

Bui Thi

Hong

Nu

1998

8.66.4

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1002  Nguyen Thi  Bich  Nu  1998  7.2 | 1003  Nguyen Van  Giang  Nam  1996  6.4 | 1001  Tran Van  Thanh  Nam  1997  7.5 |  | 1005  Duong Van  Hung  Nam  1997  6.8 |

Count = 4

1004

Bui Thi

Hong

Nu

1998

8.66.4

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1002  Nguyen Thi  Bich  Nu  1998  7.2 | 1003  Nguyen Van  Giang  Nam  1996  6.4 |  | 1001  Tran Van  Thanh  Nam  1997  7.5 | 1005  Duong Van  Hung  Nam  1997  6.8 |

So sánh tam với count = 1

1004

Bui Thi

Hong

Nu

1998

8.66.4

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1002  Nguyen Thi  Bich  Nu  1998  7.2 | 1003  Nguyen Van  Giang  Nam  1996  6.4 |  | 1001  Tran Van  Thanh  Nam  1997  7.5 | 1005  Duong Van  Hung  Nam  1997  6.8 |

1004

Bui Thi

Hong

Nu

1998

8.66.4

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1002  Nguyen Thi  Bich  Nu  1998  7.2 |  | 1003  Nguyen Van  Giang  Nam  1996  6.4 | 1001  Tran Van  Thanh  Nam  1997  7.5 | 1005  Duong Van  Hung  Nam  1997  6.8 |

1004

Bui Thi

Hong

Nu

1998

8.66.4

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1002  Nguyen Thi  Bich  Nu  1998  7.2 |  | 1003  Nguyen Van  Giang  Nam  1996  6.4 | 1001  Tran Van  Thanh  Nam  1997  7.5 | 1005  Duong Van  Hung  Nam  1997  6.8 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1002  Nguyen Thi  Bich  Nu  1998  7.2 | 1004  Bui Thi  Hong  Nu  1998 | 1003  Nguyen Van  Giang  Nam  1996  6.4 | 1001  Tran Van  Thanh  Nam  1997  7.5 | 1005  Duong Van  Hung  Nam  1997  6.8 |

Bước 3:

1005

Duong Van

Hung

Nam

1997

6.8

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1002  Nguyen Thi  Bich  Nu  1998  7.2 | 1004  Bui Thi  Hong  Nu  1998 | 1003  Nguyen Van  Giang  Nam  1996  6.4 | 1001  Tran Van  Thanh  Nam  1997  7.5 |  |

1005

Duong Van

Hung

Nam

1997

6.8

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1002  Nguyen Thi  Bich  Nu  1998  7.2 | 1004  Bui Thi  Hong  Nu  1998 | 1003  Nguyen Van  Giang  Nam  1996  6.4 |  | 1001  Tran Van  Thanh  Nam  1997  7.5 |

1005

Duong Van

Hung

Nam

1997

6.8

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1002  Nguyen Thi  Bich  Nu  1998  7.2 | 1004  Bui Thi  Hong  Nu  1998 | 1003  Nguyen Van  Giang  Nam  1996  6.4 |  | 1001  Tran Van  Thanh  Nam  1997  7.5 |

1005

Duong Van

Hung

Nam

1997

6.8

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1002  Nguyen Thi  Bich  Nu  1998  7.2 | 1004  Bui Thi  Hong  Nu  1998 |  | 1003  Nguyen Van  Giang  Nam  1996  6.4 | 1001  Tran Van  Thanh  Nam  1997  7.5 |

Kq:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1002  Nguyen Thi  Bich  Nu  1998  7.2 | 1004  Bui Thi  Hong  Nu  1998 | 1005  Duong Van  Hung  Nam  1997  6.8 | 1003  Nguyen Van  Giang  Nam  1996  6.4 | 1001  Tran Van  Thanh  Nam  1997  7.5 |