**Dada la siguiente tabla de datos, se le aplicar la eliminación de registros usando la técnica de: mover el ultimo registro de la tabla a la posición del registro a eliminar.**

“data.dat”

|  |  |  |  |
| --- | --- | --- | --- |
| 7 registros | |  |  |
|  | Id | Nombre | Ciclo |
| 1 | P-102 | Andrea | 5 |
| 2 | P-150 | Carlos | 7 |
| 3 | P-362 | Cinthya | 3 |
| 4 | P-931 | Josimar | 5 |
| 5 | P-187 | Jorge | 1 |
| 6 | P-312 | Mabel | 3 |
| 7 | P-082 | Keiko | 9 |

**Eliminar:** P-102, P-362, P-150, P-082 (en ese orden)

**//- - - - - - - - - - - - - -- -- - - - - - - - - - - - - - -- SOLUCION - - - - - - - - - - - - - - - - - - - - - - - - - - - - -- -- -\\**

|  |  |  |  |
| --- | --- | --- | --- |
| 6 registros | |  |  |
|  | Id | Nombre | Cicllo |
| 1 | P-082 | Keiko | 9 |
| 2 | P-150 | Carlos | 2 |
| 3 | P-362 | Cinthya | 3 |
| 4 | P-931 | Josimar | 4 |
| 5 | P-187 | Jorge | 5 |
| 6 | P-312 | Mabel | 6 |
| 7 | P-102 | Andrea | 1 |

|  |  |  |  |
| --- | --- | --- | --- |
| 5 registros | |  |  |
|  | Id | Nombre | Cicllo |
| 1 | P-082 | Keiko | 9 |
| 2 | P-150 | Carlos | 2 |
| 3 | P-312 | Mabel | 6 |
| 4 | P-931 | Josimar | 4 |
| 5 | P-187 | Jorge | 5 |
| 6 | P-362 | Cinthya | 3 |
| 7 | P-102 | Andrea | 1 |

|  |  |  |  |
| --- | --- | --- | --- |
| 4 registros | |  |  |
|  | Id | Nombre | Cicllo |
| 1 | P-082 | Keiko | 9 |
| 2 | P-187 | Jorge | 5 |
| 3 | P-312 | Mabel | 6 |
| 4 | P-931 | Josimar | 4 |
| 5 | P-150 | Carlos | 2 |
| 6 | P-362 | Cinthya | 3 |
| 7 | P-102 | Andrea | 1 |

|  |  |  |  |
| --- | --- | --- | --- |
| 3 registros | |  |  |
|  | Id | Nombre | Cicllo |
| 1 | P-931 | Josimar | 4 |
| 2 | P-187 | Jorge | 5 |
| 3 | P-312 | Mabel | 6 |
| 4 | P-082 | Keiko | 9 |
| 5 | P-150 | Carlos | 2 |
| 6 | P-362 | Cinthya | 3 |
| 7 | P-102 | Andrea | 1 |

**Insertar:**

|  |  |  |
| --- | --- | --- |
| P-390 | Peter Castle | 10 |
| P-011 | Lee Yoo-mi | 1 |

|  |  |  |  |
| --- | --- | --- | --- |
| 4 registros | |  |  |
|  | Id | Nombre | Cicllo |
| 1 | P-931 | Josimar | 4 |
| 2 | P-187 | Jorge | 5 |
| 3 | P-312 | Mabel | 6 |
| 4 | P-390 | Peter Castle | 10 |
| 5 | P-150 | Carlos | 2 |
| 6 | P-362 | Cinthya | 3 |
| 7 | P-102 | Andrea | 1 |

|  |  |  |  |
| --- | --- | --- | --- |
| 5 registros | |  |  |
|  | Id | Nombre | Cicllo |
| 1 | P-931 | Josimar | 4 |
| 2 | P-187 | Jorge | 5 |
| 3 | P-312 | Mabel | 6 |
| 4 | P-390 | Peter Castle | 10 |
| 5 | P-011 | Lee Yoo-mi | 1 |
| 6 | P-362 | Cinthya | 3 |
| 7 | P-102 | Andrea | 1 |

**//- - - - - - - - - - - - - -- -- - - - SOLUCION MEDIANTE FREE LIST - - - - - - - - - - - - - - - - - - -- -- -\\**

**LIFO: (Stack) O(1) en insert y delete**

**FIFO: (Cola) O(1) insert , O(k) delete (Hasta llegar al registro que quieres llegar)**

**Solucion LIFO:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | |  |  | Delete P-102 |
|  | Id | Nombre | Ciclo | NextDel |
| 1 | P-102 | Andrea | 5 | -1 |
| 2 | P-150 | Carlos | 7 | 0 |
| 3 | P-362 | Cinthya | 3 | 0 |
| 4 | P-931 | Josimar | 5 | 0 |
| 5 | P-187 | Jorge | 1 | 0 |
| 6 | P-312 | Mabel | 3 | 0 |
| 7 | P-082 | Keiko | 9 | 0 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3 | |  |  | Delete P-362 |
|  | Id | Nombre | Ciclo | NextDel |
| 1 | P-102 | Andrea | 5 | -1 |
| 2 | P-150 | Carlos | 7 | 0 |
| 3 | P-362 | Cinthya | 3 | 1 |
| 4 | P-931 | Josimar | 5 | 0 |
| 5 | P-187 | Jorge | 1 | 0 |
| 6 | P-312 | Mabel | 3 | 0 |
| 7 | P-082 | Keiko | 9 | 0 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 2 | |  |  | Delete P-150 |
|  | Id | Nombre | Ciclo | NextDel |
| 1 | P-102 | Andrea | 5 | -1 |
| 2 | P-150 | Carlos | 7 | 3 |
| 3 | P-362 | Cinthya | 3 | 1 |
| 4 | P-931 | Josimar | 5 | 0 |
| 5 | P-187 | Jorge | 1 | 0 |
| 6 | P-312 | Mabel | 3 | 0 |
| 7 | P-082 | Keiko | 9 | 0 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 7 | |  |  | Delete P-082 |
|  | Id | Nombre | Ciclo | NextDel |
| 1 | P-102 | Andrea | 5 | -1 |
| 2 | P-150 | Carlos | 7 | 3 |
| 3 | P-362 | Cinthya | 3 | 1 |
| 4 | P-931 | Josimar | 5 | 0 |
| 5 | P-187 | Jorge | 1 | 0 |
| 6 | P-312 | Mabel | 3 | 0 |
| 7 | P-082 | Keiko | 9 | 2 |

**Insertar:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 2 | |  |  | Insert P-390 |
|  | Id | Nombre | Ciclo | NextDel |
| 1 | P-102 | Andrea | 5 | -1 |
| 2 | P-150 | Carlos | 7 | 3 |
| 3 | P-362 | Cinthya | 3 | 1 |
| 4 | P-931 | Josimar | 5 | 0 |
| 5 | P-187 | Jorge | 1 | 0 |
| 6 | P-312 | Mabel | 3 | 0 |
| 7 | P-390 | Peter Castle | 10 | 0 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3 | |  |  | Insert P-011 |
|  | Id | Nombre | Ciclo | NextDel |
| 1 | P-102 | Andrea | 5 | -1 |
| 2 | P-011 | Lee Yoo-mi | 1 | 0 |
| 3 | P-362 | Cinthya | 3 | 1 |
| 4 | P-931 | Josimar | 5 | 0 |
| 5 | P-187 | Jorge | 1 | 0 |
| 6 | P-312 | Mabel | 3 | 0 |
| 7 | P-390 | Peter Castle | 10 | 0 |

**Solucion FIFO:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | |  |  | Delete P-102 |
|  | Id | Nombre | Ciclo | NextDel |
| 1 | P-102 | Andrea | 5 | -1 |
| 2 | P-150 | Carlos | 7 | 0 |
| 3 | P-362 | Cinthya | 3 | 0 |
| 4 | P-931 | Josimar | 5 | 0 |
| 5 | P-187 | Jorge | 1 | 0 |
| 6 | P-312 | Mabel | 3 | 0 |
| 7 | P-082 | Keiko | 9 | 0 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | |  |  | Delete P-362 |
|  | Id | Nombre | Ciclo | NextDel |
| 1 | P-102 | Andrea | 5 | 3 |
| 2 | P-150 | Carlos | 7 | 0 |
| 3 | P-362 | Cinthya | 3 | -1 |
| 4 | P-931 | Josimar | 5 | 0 |
| 5 | P-187 | Jorge | 1 | 0 |
| 6 | P-312 | Mabel | 3 | 0 |
| 7 | P-082 | Keiko | 9 | 0 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | |  |  | Delete P-150 |
|  | Id | Nombre | Ciclo | NextDel |
| 1 | P-102 | Andrea | 5 | 3 |
| 2 | P-150 | Carlos | 7 | -1 |
| 3 | P-362 | Cinthya | 3 | 2 |
| 4 | P-931 | Josimar | 5 | 0 |
| 5 | P-187 | Jorge | 1 | 0 |
| 6 | P-312 | Mabel | 3 | 0 |
| 7 | P-082 | Keiko | 9 | 0 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | |  |  | Delete P-082 |
|  | Id | Nombre | Ciclo | NextDel |
| 1 | P-102 | Andrea | 5 | 3 |
| 2 | P-150 | Carlos | 7 | 7 |
| 3 | P-362 | Cinthya | 3 | 2 |
| 4 | P-931 | Josimar | 5 | 0 |
| 5 | P-187 | Jorge | 1 | 0 |
| 6 | P-312 | Mabel | 3 | 0 |
| 7 | P-082 | Keiko | 9 | -1 |

**Insertar:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | |  |  | Insert P-390 |
|  | Id | Nombre | Ciclo | NextDel |
| 1 | P-102 | Andrea | 5 | 3 |
| 2 | P-150 | Carlos | 7 | -1 |
| 3 | P-362 | Cinthya | 3 | 2 |
| 4 | P-931 | Josimar | 5 | 0 |
| 5 | P-187 | Jorge | 1 | 0 |
| 6 | P-312 | Mabel | 3 | 0 |
| 7 | P-390 | Peter Castle | 10 | 0 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | |  |  | Insert P-011 |
|  | Id | Nombre | Ciclo | NextDel |
| 1 | P-102 | Andrea | 5 | 3 |
| 2 | P-011 | Lee Yoo-mi | 1 | 0 |
| 3 | P-362 | Cinthya | 3 | -1 |
| 4 | P-931 | Josimar | 5 | 0 |
| 5 | P-187 | Jorge | 1 | 0 |
| 6 | P-312 | Mabel | 3 | 0 |
| 7 | P-390 | Peter Castle | 10 | 0 |