1.)

|  |  |  |
| --- | --- | --- |
| Block # | 17 | 18 |
| Next block | 18 | 0 |
|  | 4589 | 24353 |
|  | 43546 | 98745 |
|  | 718 | 76345 |
|  | 345 | 9877 |
|  | - | 7345 |
|  | - | 34535 |
|  | - | 154698 |
|  | - | 967 |
|  | - | 8657 |

|  |  |  |
| --- | --- | --- |
| Block # | 17 | 18 |
| Next block | 18 | 0 |
|  | 4589 | 24353 |
|  | 43546 | 98745 |
|  | 718 | 76345 |
|  | 345 | 9877 |
|  | 22 | 7345 |
|  | - | 34535 |
|  | - | 154698 |
|  | - | 967 |
|  | - | 8657 |

|  |  |  |
| --- | --- | --- |
| Block # | 17 | 18 |
| Next block | 18 | 0 |
|  | - | 24353 |
|  | - | 98745 |
|  | - | 76345 |
|  | - | 9877 |
|  | - | 7345 |
|  | - | 34535 |
|  | - | 154698 |
|  | - | 967 |
|  | - | 8657 |

|  |  |  |
| --- | --- | --- |
| Block # | - | 18 |
| Next block | - | 0 |
|  | - | 24353 |
|  | - | 98745 |
|  | - | 76345 |
|  | - | 9877 |
|  | - | 7345 |
|  | - | 34535 |
|  | - | 154698 |
|  | - | 967 |
|  | - | 17 |

|  |  |  |
| --- | --- | --- |
| Block # | - | 18 |
| Next block | - | 0 |
|  | - | 24353 |
|  | - | 98745 |
|  | - | 76345 |
|  | - | 9877 |
|  | - | 7345 |
|  | - | 34535 |
|  | - | - |
|  | - | - |
|  | - | - |

|  |  |  |
| --- | --- | --- |
| Block # | 634634 | 18 |
| Next block | 18 | 0 |
|  | - | 24353 |
|  | - | 98745 |
|  | - | 76345 |
|  | - | 9877 |
|  | - | 7345 |
|  | - | 34535 |
|  | - | 23456 |
|  | - | 8345345 |
|  | - | 56 |

2.)

The linked list approach uses less space than the bitmap approach, when the drive has only around 30 GB (28,990,325,760 bytes to be precise) of free space left.