|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Algorithm 2:** Algorithm GF | | | | |
| **Input:** Instance *I*, job set containingjobs with thicknessesand sizes , *m* machines, machine capacity C | | | | |
| **Output:** Schedule | | | | |
| Initialization: Initialize m empty machines , each with batch set = ∅ and completion time = 0; k batches on each machine, is the batch on machine | | | | |
| Obtain job list XXX | | | | |
| **for** each job in **do** | | | | |
|  | **for** each machine **do** | | | |
|  |  | **for** each **do** | | | |
|  |  |  | **if**  **then** | | |
|  |  |  |  |  | |
|  |  |  | **else** | | |
|  |  |  |  | Add a new batch | |
|  |  |  |  |  | |
|  |  |  | **end if** | | |
|  |  | **end for** | | | |
|  |  |  | | | |
|  | **end for** | | | | |
|  | **for** each **do** | | | | |
|  |  | **if** is the minimum value among all  **then** | | | |
|  |  |  | Add a new subset T | | |
|  |  |  |  | | |
|  |  | **end if** | | | |
|  | **end for** | | | | |
|  | **for** *i* in 1 to m **do**: | | | | |
|  |  | **if**  in T **then** | | | |
|  |  |  | **if** is the minimum value in T **then** | | |
|  |  |  |  | Select | |
|  |  |  |  | /\* | |
|  |  |  | **end if** | | |
|  |  | **end if** | | | |
| **end for** | | | | | |
|  | Assign to on | | | | |
|  |  | | | | |
|  |  | | | | |
| **end for** | | | | | |
| XXX 21 | | | | | |
| **return** | | | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Algorithm 3:** Algorithm LB | | | |
| **Input:** Instance *I*, job set containingjobs , *m* machines, machine capacity C | | | |
| **Output:** Schedule | | | |
| Initialization: Initialize m empty machines , each with batch set = ∅ and completion time = 0 | | | |
| Assign jobs in to batches and obtain batches by Algorithm DP | | | |
| Obtain batch list = {} by sorting the batches in non-increasing order of their processing times | | | |
| **for** each batch **do /**\*\*/ | | | |
|  | **for** i in 1 to m**do** | | |
|  |  | **if**  is the minimum value among all **then** | | |
|  |  |  | Assign to | |
|  |  | **end if** | | |
|  | **end for** | | | |
|  |  | | | |
|  |  | | | |
| **end for** | | | | |
| Assign all batches in to machines and obtain schedule ; | | | | |
| **return** | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Algorithm 2:** Algorithm LG | | | | |
| **Input:** Instance *I*, job set containingjobs with thicknessesand sizes , *m* machines, machine capacity C | | | | |
| **Output:** Schedule | | | | |
| Initialization: Initialize m empty machines , each with batch set = ∅ and completion time = 0; k batches on each machine, is the batch on machine | | | | |
| Obtain job list XXX | | | | |
| **for** each job in **do** | | | | |
|  | **for** each machine **do** | | | |
|  |  | **for** each  **do** | | | |
|  |  |  | **if**  **then** | | |
|  |  |  |  |  | |
|  |  |  | **else** | | |
|  |  |  |  | Add a new batch | |
|  |  |  |  |  | |
|  |  |  | **end if** | | |
|  |  | **end for** | | | |
|  |  |  | | | |
|  | Add a new subset T | | | | |
|  |  | | | | |
|  | **end for** | | | | |
|  | **for** *i* in 1 to m **do**: | | | | |
|  |  | **if** is the minimum value among in T **then** | | | |
|  |  |  | Select | | |
|  |  |  | /\* | | |
|  |  | **end if** | | | |
|  | **end for** | | | | |
|  | Assign to on | | | | |
|  |  | | | | |
|  |  | | | | |
| **end for** | | | | | |
| XXX 21 | | | | | |
| **return** | | | | | |