Minimize: $K = \sum_{j=1} y_j$

Subject to:

$$egin{aligned} \overline{\sum_{i=1}^m} \ x_{ij} &= 1 \qquad orall i = 1,...,n \ x_{ij} &\in 0,1 \qquad orall i = 1,...,n \end{aligned}$$

 $y_j \in 0,1 \qquad \forall j = 1,..,m$

 $\sum s(i)x_{ij} \le By_j \qquad \forall j = 1, ..., m$