**Firefly Algorithm for Ensemble Clustering**

1. Input Large Dataset
2. Split the Large Dataset into Multiple Dataset Chunks.
3. Distribute Dataset Chunks to Slave Nodes.
4. for each dataset chunk on a slave node:
   1. Apply Firefly Algorithm to optimize the chunk.
5. Aggregate Results from Slave Nodes on Master Node.
6. Apply Elbow Method to determine the Optimal K Value.
   1. Determine the optimal number of clusters (K) based on the Elbow Method.
7. Perform K-means Clustering on the combined dataset using the Optimal K Value.
   1. Apply K-means clustering to the dataset.
8. Output Final Clusters.
9. End.