

Forward Selection:

1. Total number of features (n) input.
2. Give the empty feature set a random accuracy value (rand).
3. Specify the empty feature set in the accuracy field.
4. Create a blank finalMap from scratch to hold the highest level of accuracy for each feature subset.
5. Set originalArray to a bare array and finalMax to 0.
6. beginning the forward selection search loop:
 - Create longer arrays by expanding the originalArray one feature at a time.
 - For each feature subset, evaluate the nearest neighbor classifier's accuracy (num2).
 - In a map (map), save the accuracy and the related feature subset.
 - Update the current iteration's maximum accuracy (max).
 - For the selected feature subset, print the accuracy.
7. The feature subset that produced the highest level of accuracy should be added to the originalArray.
8. Add the highest level of accuracy currently obtained to the finalMax.
9. Save the finalMap with the greatest accuracy and the appropriate feature subset.
10. Print the accuracy of the most up-to-date best feature set.
11. For the remaining features, repeat steps 6–10 n times.
12. Produce the finalArr and finalMax feature subset from the finalMap that has the best accuracy.
13. Print the accuracy of the best feature subset.

Backward Elimination:

1. Make an n-length random feature sequence (arr).
2. Print the whole feature set's feature sequence along with a random accuracy (num).
3. To store the highest level of accuracy for each feature subset, create a copy of arr and finalMap and initialize newArr as such.
4. Set finalMax to 0 at startup.
5. Launch the loop of backward elimination:
 - Create subarrays by deleting each feature from newArr one at a time.
 - For each feature subset, determine the nearest neighbor classifier's accuracy (num1).
 - In a map (hashMap), save the accuracy and the corresponding feature subset.
 - Update the current iteration's maximum accuracy (max).
 - For the selected feature subset, print the accuracy.
6. Add the feature subset that produced the highest level of accuracy to newArr.
7. Update finalMax with the highest level of accuracy so far.
8. Save the matching feature subset and maximum accuracy in finalMap.
9. Print the accuracy of the most up-to-date best feature set.
10. For the remaining features, repeat steps 5 through 9 n times.
11. The finalArr and finalMax feature subset from finalMap with the highest accuracy should be output.
12. Print the accuracy of the best feature subset.