







**Study on proposed prediction strategies**

Here we have set a different input parameter for predicting links in temporal mobile database shown in fig 5, after setting different input parameter we have to generate the HLR and VLR records then we have to process the generated data records. The generated processed dataset is used as an input for generate ordered pair algorithm. This algorithm is used to find the popular services at each location on a particular time mean we get the pair of location and services In Generate order Pair we find the different services access on different location by users at a particular

time. Then we used LBS Alignment algorithm for finding the different services access by mobile users on different location at a particular time along with users. Then we used output of Generate order Pair as input to Smart Cluster Affinity for forming the clusters of location and services. After that we used Time Segmenting Point algorithm for forming the clusters of user and services which he accessed. Fig 6 shows the output of CTMSP-mine. Fig 7 shows the output of prediction system where we predict which user will access which service on which location and at what time.

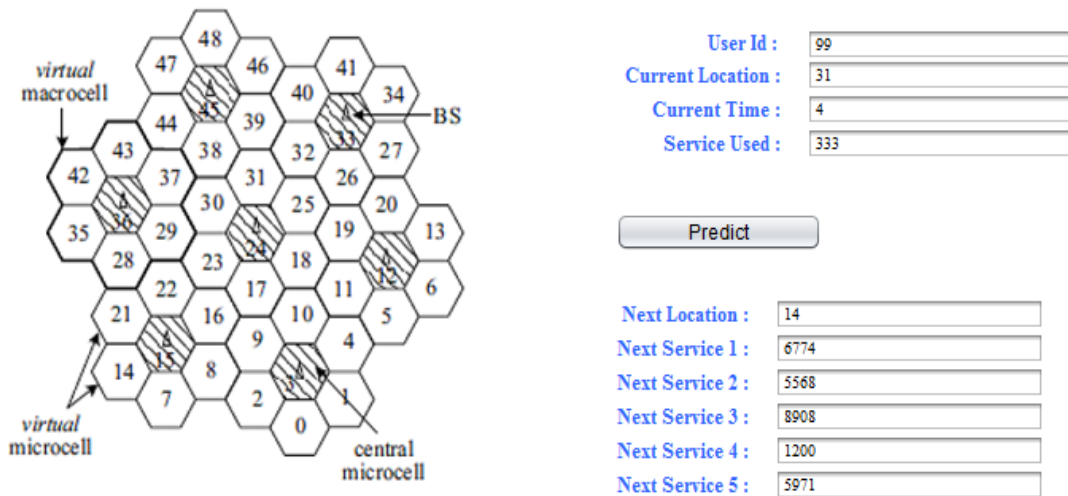
**Figure 5:** Setting Parameter

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CTMSP-Mine Pattern List
High Predicted Combine Clusters
330 -> 2 -> 15 -> 2 -> 4775
330 -> 2 -> 15 -> 2 -> 4775
330 -> 2 -> 15 -> 2 -> 6836
330 -> 2 -> 15 -> 2 -> 7362
450 -> 2 -> 13 -> 2 -> 1746
450 -> 2 -> 13 -> 2 -> 6250
450 -> 2 -> 13 -> 2 -> 6250
450 -> 2 -> 13 -> 2 -> 6250
550 -> 2 -> 49 -> 4 -> 736
550 -> 2 -> 49 -> 4 -> 5793
550 -> 2 -> 49 -> 4 -> 5793
550 -> 2 -> 49 -> 4 -> 5730
696 -> 1 -> 16 -> 1 -> 8413
696 -> 1 -> 16 -> 1 -> 6064
696 -> 1 -> 16 -> 1 -> 6064
696 -> 1 -> 16 -> 1 -> 6064
1218 -> 2 -> 6 -> 3 -> 4446
1218 -> 2 -> 6 -> 3 -> 4446
1218 -> 2 -> 6 -> 3 -> 4446
1218 -> 2 -> 6 -> 3 -> 4446
1643 -> 1 -> 40 -> 3 -> 414
1643 -> 1 -> 40 -> 3 -> 414
1643 -> 1 -> 40 -> 3 -> 414
    
```

**Figure 6:** Working of CTMSP- Mine

**Prediction of Mobile User Behavior**



**Figure 7:** Final prediction of Mobile User Behavior

### 5. Conclusion

In this paper, we propose a novel data mining method, namely sequential mobile access pattern (SMAP-Mine) that can efficiently discover mobile users' sequential movement patterns associated with requested services. A new method is proposed and named as CTMSP-Mine, for discovering CTMSPs in LBS environments. Further, prediction strategies to predict the subsequent user mobile behaviors using the discovered CTMSPs are introduced. In CTMSP-Mine technique, transaction clustering algorithm named CO Smart-CAST is used to form user clusters, based on the mobile transactions using the proposed LBS-Alignment similarity measurement. Using temporal periods and user clusters simultaneously for prediction, enhances the

prediction results. Such prediction results are used by the corresponding mobile service providers to enhance their services.

### 6. Future Work

By implementing prioritization, it is possible to provide priorities for selected users among the complex user behavior. Many users utilize the mobile services every day but their interest and priorities are different from other user. Such users are prioritized over other mobile users. These prioritized services help to satisfy the needs of mobile users completely when resources are limited. Further, this could be implemented for group behavior too.

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