**2. BACKGROUND AND PREVIOUS WORKS**

The previous researches in the process of publishing the privacy preserved data is mainly focused on single sensitive attribute and which cannot be implemented for the multiple sensitive attributes. The model of k-anonymity [30] was based on partitioning the given microdata table in a manner such that each equivalence class of the microdata table should contain at least k number of records which cannot be distinguishable from the other set of records. The drawback of this model is inefficient resistance to homogenous attacks. The improved model called p-sensitive model for multiple sensitive attribute was developed. This model assigns the Group ID to equivalence classes along with masking and generalizing the quasi-identifier group. The drawback is that it did not consider the frequency of multiple sensitive attributes [11]. A better model (l-diversity) was proposed in order to consider the frequency of attributes into account. This model describes the method of grouping the data such that there should be at least *l* different sensitive values. If the attacker wants to identify the individual with sensitive values, then he must have at least *(l-1)* sensitive values with high probability of occurring. The drawback of this model is that it applies only to single sensitive attribute [16]. The modified version of the previous model was implemented in order to consider multiple sensitive attributes called l-m-d anonymity. l-m-d anonymity deals with method of anonymizing the microdata table by creating equivalence classes along with generalizing and masking. The drawback of l-m-d anonymity is that it considers the process of generalizing the quasi-identifier [13]. The best method for anonymizing the data called anatomy was proposed. deals with the problem of generalization by dividing the microdata table into the two tables namely quasi-identifier table and the sensitive attribute table. In the quasi-identifier table, the quasi-identifiers pertaining to an individual is displayed along with their Group ID. The sensitive attribute table consists of the Group ID, sensitive attribute, and the count of the sensitive value. The process of anatomy was strong and effective but there was a need for diversifying data [27]. In the process of converting the data into more diversified form, it is important to identify the primary and secondary sensitive attribute. The sensitive attribute containing higher and more unique sensitive values is considered as primary sensitive attribute [6]. The method of calculating the diversity index for the anonymized table was finally implemented. The degree of diversity is an indication of how diversified the table is [14].