Abstract: The reason of the powerful application and large availability of the databases, the data mining become challengeable and trustful research field. The pattern mining is one of the fields in the data mining. The multi-relational data mining allows pattern mining from multiple table, in recent years multi-relational pattern mining is developing rapid manner. Even though the existing multi-relational mining algorithms are not ideal for the large amount of data. In this paper, we have developed a technique to mine the multi-relational pattern using a relational tree. The relational tree constructed by reading the records from multi-relational database one by one and make the combination (relations) according the presence of fields in the database. From this we get the relational tree data structure without violating the relations of the records. Subsequently, the tree pattern mining algorithm is formulated and applied to the developed tree structure for mining the important relational patterns from the relational tree. The experimentation is carried out on the patient medical database and comparative results are extracted and the performance of the proposed approach is evaluated based on the existing work.