

# Literature Survey

The following are the key findings obtained from the literature survey.

**1. Drug Classification Systems in Healthcare:** Existing drug classification systems predominantly utilize machine learning algorithms for accurate categorization. The dynamic nature of drug information and the requirement for constant database updates pose difficulties. The effectiveness of drug classification systems is increased through integration with electronic health records (EHRs).

**2. Methods and Techniques in Drug Classification Projects:** Approaches that use ensemble learning perform better in terms of accurate drug classification. The comprehension of unstructured drug information is improved with the integration of natural language processing (NLP) tools. Making sure machine learning models are explainable presents challenges, especially when making important healthcare decisions.

**3. Gaps in Knowledge:** Limited research addresses the integration challenges between drug classification and appointment scheduling systems. The use of historical data and patient preferences in appointment scheduling are two areas where there are significant gaps. The unique requirements of various healthcare settings, such as outpatient clinics or specialty hospitals, are rarely the subject of investigations.

**4. Scheduling and Appointment Systems:** Systems for scheduling appointments frequently encounter difficulties with lengthy wait times and disgruntled patients. Scheduling tools that are web- and mobile-based have showed potential in raising patient engagement and accessibility. Facilitating integration with patient data management systems enhances the efficiency and personalization of appointment scheduling.