**MODULES:**

* User
* Adagency
* Admin
* Mechine Learning

**User**

the user's natural attribute features and the user's registration information can be extracted directly from the original data, but the user's registration information is not perfect, some users' sex, age data are unknown, and some users are home users. So we mainly solve the conversion rate according to the data given, that is, in the case of all given data and labels, we can find the conversion rate of the purchase behavior of different sex and the conversion rate of purchase behavior at different age grades, so as to produce new characteristics for us to use.

**Adagency**

Search advertising is a common way of Internet marketing. When users enter these keywords, the corresponding advertising goods will be displayed in the pages that the user sees .The conversion rate of search advertisements is used as an index to measure the effect of advertising transformation, that is, the probability of advertising products being bought by users after clicking. With the rapid development of Internet, search advertising has become more and more popular in Internet advertising, and has become one of the most important business models in the Internet industry.

**Admin:**

The aim of admin is to approve the user and adagency . proposes a feature processing method based on store and user data pre-analysis, which aims to pre-analyze the features, that is, the first prediction processing of the features of users and stores, and as a new feature. The results of this experiment take the size of Logarithmic Loss (Logless) as the evaluation standard. In general, we must correctly handle the features and reduce the Logless value as much as possible, which is the next problem we need to solve

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**Machine learning**

Machine learning refers to the computer’s acquisition of a kind of ability to make predictive judgments and make the best decisions by analyzing and learning a large number of existing data. The representation algorithms include deep learning, artificial neural network, decision tree, enhancement algorithm and so on. The key way for computers to acquire artificial intelligence is machine learning. Nowadays, machine learning plays an important role in various fields of artificial intelligence. Whether in aspects of internet search, biometric identification, auto driving, Mars robot, or in American presidential election, military decision assistants and so on, basically, as long as there is a need for data analysis, machine learning can be used to play a role.