Discourse, as the most direct way for people to communicate and express, contains a lot of information, which can reflect your real-time emotions, current task situation and things to do in the future, etc.At present, there is only a single-function recorder in circulation in the society, which can only collect and simply store voice alone, and there is no system that can reasonably store and analyze these data and get valuable things.If you can collect these data and do the corresponding analysis, you can not only enhance your understanding of yourself, but also make better choices for the future.At the same time, this system can be regarded as an attempt to collect and analyze recorded data. In order to collect voice information generated anytime and anywhere, it is necessary to establish an efficient and accurate voice analysis system.

The main function of this system is: it can collect the user's voice data, and use a certain method to analyze the voice data to obtain useful information for the user, and make corresponding behaviors based on this information, so that the user can enhance their own Understand and adjust emotions in time.After analyzing the needs of this system, the system is finally divided into three parts: voice collection and transmission perception layer, data analysis communication server, and data display client.The voice acquisition and transmission perception layer is based on the STM32F103ZET6 chip, uses VS1053 to collect voice data, and saves the files on the onboard SD card, controls the ESP8266WIFI wireless communication module through the serial port to upload voice data to the server, and other communication operations.The data analysis communication server mainly completes the multi-threaded receiving request, the communication with the perception layer: the receiving of voice files, and the reconstruction of WAV voice.Data analysis: After completing the parameter adaptation, use the Xunfei API to complete the conversion of speech to string, and analyze the keyword collection, sentiment analysis, etc., and store the data according to the file management system of this system.Client request processing: Respond to client requests according to the defined communication protocol of this application.The data display client mainly implements keyword word cloud, mood chart, intelligent recommendation, and four functions of today's summary.

After completing the design, the function of the finished product was tested, the predetermined function was realized, and the expected effect was achieved.