Development Group Number	Project Title	Project Description	Customer Group Number
1	CodeClub	In the face of the current mainstream developers' communities or platforms (Github, Stack Overflow, code cloud, code City, Topcoder, Pogrammable Web), their business functions are relatively simple. CodeClub is a web-based platform that integrates the main functional modules of the current mainstream developer community, aims to provide "resource integration services" for the vast number of developers, and innovatively proposes "incentive mechanism" to recommend the top users to cooperative enterprises.	2

| 2 | Rehabilitation Treatment Platform (Android App) | With the development of society and the general improvement of people's living standard, people begin to pay more and more attention to health. In recent years, there are also a large number of medical and health service platforms on the Internet. However, rehabilitation therapy, an important medical direction, is seldom involved in China. Therefore, we hope to achieve a small rehabilitation treatment platform based on Android platform, which specializes in health. More specifically, physical therapy. | 1 |

3	Personal Fitness Coach System	In the rapid development of modern urban life, the fast pace of life requires a strong body, which makes gyms springing up like bamboo shoots. However, as the price of housing in major cities increases the cost of gyms, the price of personal trainers cannot meet the needs of the masses. App is the best choice to teach your body shape according to your aptitude and make fitness plan.	4

| 4 | Cloud Platform for Medical and Health Archives | - Project requirements

Docking with hospital management system. Centralized cloud storage of patients' medical records, case history, basic personal information, treatment process in different hospitals, and establishment of personal medical and health records. Networking with hospital inspection equipment, cloud storage of inspection results. High security and scalability of projects. Doctor users can access and add medical and health records. I can only access medical records. Doctors cannot delete previous medical records, treatment process, medical history and past cases. Health records query by time, hospital and project. Potential disease prediction (doctor users) | 3 |

| 5 | Control System for Intelligent Pastry Machine | At present, pastry machines on the market all have the functions of mixing noodles, automatic mixing, fermentation and baking. Users only need to choose their favorite formula and set instructions. This method saves time and effort and can produce bread with full color and fragrance. At the same time, relevant pastry machines also have pre-production and delayed production instructions. However, these functions cannot meet the individual needs of users, and cannot adjust the baking requirements of cakes according to the changes of users' itinerary plans; the functions of using the same processing technology for different ingredients need to be improved; the baking process of cakes cannot be artificially intervened and cannot meet the different requirements of different people.

In view of the above problems, this subject develops a set of intelligent pastry machine based on STM32 MCU control. It can monitor the process of mixing, mixing and baking pastry by embedded system. At the same time, it establishes a database. Users can make or modify the formula by themselves. Different temperature curves are used for heating hardware, STM32F4 MCU and temperature and pressure sensors, and software is adopted. Keil 5, ANSYS 10.0 development environment and C programming language are used to develop data processing program.

(1) The relationship between temperature field and heating power is established by finite element simulation.

(2) Realizing adjustable motor speed in the process of blending

(3) The pastry machine can set different heating modes and working hours. | 13 |

| 6 | Agricultural assistant App | Agricultural assistant app is a one-stop O2 O service platform, which is centered on serving large farmers of farmland and helps them solve the problems of sale, financing and agricultural technology services.

Functional requirements:
1. Personal account function, users can release accurate and real-time updates of local agricultural information and real-time news provided by agricultural assistants to comment and sponsor functions.
2. Real-time news function, users can view the latest agricultural news, the latest agricultural policy, the current real-time market of all kinds of agricultural products after opening the agricultural assistant app.
3. Agricultural inquiry function. Users can search and inquire the details of agricultural products, seeds, pesticides, fertilizers, enterprises, business licenses and production licenses to provide effective and real data for large farmers.
4. Video publishing and viewing function, users can upload recorded videos for publishing, but also can view other users released agricultural-related videos. At the same time, app also has a certain classification function for video, users can see the video clearly.
5. The function of grain price checking and reporting, because most of the users are big farmers, app also needs to provide the function of grain price query and reporting, which provides a good online trading platform for large farmers to buy and sell grain.
6. The function of community forum enables users to communicate and communicate with each other in real time in order to get some market and agricultural knowledge more conveniently. | 5 |

| 7 | The Public Opinion System of College Students | It is mainly a public opinion analysis system developed for college students. In general public opinion analysis, because people's education level is uneven and age maturity is different, it is easy to cause the existing data "not clean" or false data. College students are relatively more capable of logical analysis and thinking, and dare to talk about some topics, so they can become better data sources. And for the public opinion of the general public, there are many scholars in the study, so our group chose college students as the entry point.

The requirements of this group are divided into three major modules:
1. School score, school quality and professional quality college entrance examination consulting needs module. This module mainly focuses on the machine learning of weighted data by evaluating and synthesizing the employment rate, salary, quantity of high-quality papers, number of going abroad, etc. of related majors in the relevant schools. It ranks the graduate salary (from salary, etc.) and academic impact (from papers, going abroad, etc.) in terms of majors. (Here, according to the amount of data obtained from various aspects, we can model whether it is based on the data of universities or public opinion, and then correct it with other data.) This can directly guide high school students to choose schools, and through regression, we can even predict the approximate number of applicants, and the crossline scores of relevant schools. (Optimized by keyword frequency)

2. Information demand module of teacher's course selection. (Here is mainly a product linked to the database of the relevant schools, and accompanied by the relevant forum system.) Mainly through the teacher registration rate, the high rate of pre-model. Later, according to the evaluation of the forum used by the students, a sort algorithm similar to the web page is carried out, and the ranking basis is also based on the analysis of the corresponding public opinion to optimize the system. (That is to say, the system started with a simple sorting of the rate of public course failures, followed by the expansion of the public opinion system to assist in | 12 |

		the latter stage, after which you can also set up such optimization applications as "teach you high marks", through the experience of the elder brother, teach you how to "score".	
		3. Student learning, cognitive needs module.	
		Through the students' speeches on the forum, the corresponding schools can roughly analyze the students' learning situation and their cognitive level of things. At the same time, colleges and universities can also find some unreasonable places to take precautions against it. At the same time, students themselves can discuss some interesting issues. Because they are both college students, they have similar interests.	

| 8 | Lost and Found System | Nowadays, there is no well-known network channel on the market to publish or claim lost property. When the owner loses the item, he is hard to find it. It is impossible to find the lost item in another place. There is no channel for the owner to return the items he has found. Although there are lost and found centers in many places, these centers record lost and found information with paper notes, which is time-consuming to inquire, and the owner must go to the center to confirm his lost and found. Therefore, it is urgent to develop a national lost and found system.

Roles: Administrator users (students, police, people of all identities)

Basic Function Modules
1. Registration login module: Users can register and administrators can login directly to the system.
2. Home page module: ordinary users can browse the latest information, search for lost and found information under multiple conditions, and display different kinds of lost and found information in blocks. Website bulletin display.
3. Lost and Found module: Everyone can view the lost and Found information and details. Users can contact the publisher to confirm their receipt after login.
4. Lost and Found module: Users can add and view details after landing. Everyone can check the lost and found information.
5. Background management module: administrators can have user information management, message management, website announcement management, lost and found lost management, administrator information management and other functions.
6. Message board module: Users can leave messages or reply to specific lost and found items. | 11 |

9	Self-service shopping system	This project mainly wants to do unattended shopping, scan the two-dimensional code of goods into the virtual shopping cart when visiting the supermarket, check out by oneself on the mobile phone before leaving the supermarket, get the two-dimensional code of successful payment, scan the code at the induction door when going out, and open the door automatically if successful payment is not paid, please pay first and then through the induction door. But it can also serve supermarkets, because some people like to visit supermarkets, but they are afraid of long queues when paying, and this project just meets the needs of these people.	10

| 10 | Help each other: A Crowdsourcing Platform for College Students | Professional help is a network application that pays attention to the growth of College students. The main users of the platform are high school graduates who are about to enter the University and senior students who are going to take the postgraduate examination. The platform will solve the difficulties faced by students during the period of undergraduate admission and postgraduate preparation due to information asymmetry, and at the same time continue to pay attention to the growth of students during the undergraduate period. The platform will provide students with basic free services, but also provide professional value-added services. While providing professional services, the platform also provides services to users in the form of crowdsourcing. The platform develops users through online publicity, expands the influence of the platform through professional communication platform, and taps the potential value of customers. The platform includes PC terminal and mobile terminal, PC terminal mainly takes web platform as the core, mobile terminal takes Wechat public number as the core. The easiest way to cut into the pain points of users, so that users can get the most needed services in a straight line way. | 9 |

| 11 | Student-Aid Charity Platform | This project is designed to help out-of-school children complete their studies and set up a charitable platform to help people realize charitable ideas for various reasons. It reminds people that charity needs everyone to participate and do their best to help the groups that need to be concerned. | 8 |

| 12 | Care for cancer patients | In today's environment, the role of psychotherapy for cancer patients is becoming more and more obvious, and there are countless cases of successful cure of cancer because of a good positive attitude. At present, hospitals need a good team to carry out the work of soothing care for cancer patients and strengthen the possibility of cancer patients' cure. However, as the number of cancer patients increases, the management of archives, the establishment of mitigation indicators, the psychological status of cancer patients, the formulation of mitigation programs, and end-to-end follow-up are becoming more and more difficult to manage, such a system will be needed to integrate these processes. | 7 |

| 13 | No waiting for tickets | The system can screen flight and ticket inquiries according to users' needs, such as whether there is meal, whether there is baggage, whether it can be returned or changed, etc. For the users who need to consign, they can also input the weight of luggage by themselves, and the corresponding price can be converted by the system and presented to the users.

In the process of ticket purchasing, the system can estimate the lowest price of the flight from the current date to the departure date according to the historical price of the flight and the arrangement of legal holidays. Users can choose to purchase tickets by themselves according to the predicted price trend given by the system. They can also choose the service provided by the system to ensure the success of ticket issuance. Users only need to pay the current predicted ticket price and so on. The system ensures that the ticket purchasing task is completed within the required date for additional service charges. Even if the final order price is higher than the user's expenditure, the user does not need to make up the difference.

Users can set the expected price of one or more flights. When the price of the flights is lower than the user's expectation, the system reminds users to buy tickets in time. At the same time, the number of tickets in a certain warehouse of the shift is monitored. When the number of tickets is lower than the threshold set by the user, relevant information is pushed to the user. Users can choose to buy tickets by themselves after receiving notification or the automatic order-placing service provided by the system.

The system provides optional transport service and accommodation service to solve the worries of users who take morning and evening flights. At the same time, it also provides ticketing services for connecting buses. | 6 | |

14	Logistics Enterprise Storage and Transportation Business Information System Supported by Geographic Information Platform	Basic Goal Requirements Acquisition, recording, playback of target position and trajectory Geographic Information Platform Support (Map Query, Display, Path Computing, Navigation) Including basic functions such as mobile storage, data synchronization, integrated message architecture, etc.	17

15	Campus Library Assistant App	This app is a functional expansion based on the existing app "self-study assistant" in the library of Wuhan University. According to our preliminary experience of the existing app, we know that the existing "self-study assistant" only completes the basic reserved seats, site seating and other functions, which need to be gradually increased, and ultimately realize the electronic library, so that students can enjoy most of the library services without leaving home.	16

| 16 | Intelligent Location Service Software | With the rapid development of mobile Internet era, mobile phone applications are becoming more and more popular. Android phones account for a large proportion of users. This also makes people more and more demand for mobile app applications. In these demands, security is undoubtedly one of the most important aspects that people care about. According to statistics, the number of children lost and abducted every year is as high as 200,000, only 0.1% can be recovered; by 2020, the elderly population will reach 248 million, and the level of aging will reach 17.17%. Caring for children and the elderly is the focus of society. With the development and application trend of LBS and mobile app and the development of tourism, it is expected that there will be millions of downloads and usage in "Where" within two years. Popularizing "Where" APP can greatly strengthen safety management, improve the protection ability of personnel, better prevent children from losing, protect the elderly, and reduce accidents. It has great potential and application value.

Using mobile app to accurately locate the people to be concerned with in order to determine their safety has gradually become a popular demand. It is under such conditions that our "where" app also emerges at the historic moment to enhance people's awareness of life safety and create a caring atmosphere for society!

This product is basically applicable to all social groups, including the elderly, children, adults, is an intelligent security positioning service software! In our life, there are often some safety accidents, such as parents taking children out to play, turning around on the way to the child disappeared; for example, the community often reports the disappearance of the elderly; there are also some young people who often travel together to go out together, if they cannot get the location information of other peers in time, they are prone to act alone or walk away.

Through our software, you can send monitoring invitations to relatives and friends, and | 15 |

		monitor the location information of friends from time to time. If the distance warning function is set, when the distance between friends and you exceed the set distance, alarm vibration and other prompt functions will be activated. Through "Where" APP, we can know each other's specific location and surrounding reality in real time, and can quickly. Navigate at high speed.	
17	"Healthy Life" System	System Main Requirements Description 1: Patients and doctors can carry out online consultation function. 2: The patient can make an appointment to see a doctor online. 3: App connects to wearable devices, and transmits the user's body function information (heart rate, blood pressure, etc.) to the database through wearable devices. 4: When patients need emergency help, they can send requests through app, connect with map app to obtain location information, and push emergency help notification to the app terminal of the adjacent certified doctor. Doctors can rush to the scene to help. 5: After the doctor succeeds in rescuing, he can apply to the hospital representative's web end. If the hospital representative verifies the success, the doctor's integral will increase according to the situation. The integral will add to the doctor's salary, reputation and so on. 6: Doctors can apply to the hospital web through app, so that in the ambulance or accident scene, more experts can be consulted by online video to improve the success rate of rescue.	14