Mini program of EIE club MMS

I really admire your idea of developing a mini-program by yourself! Here are some suggestions suitable for people with a non-technical background to help you start this project:

I. Clarify Requirements and Plan

1. Determine Functional Requirements

• Membership Information Management: Record basic information of the principals, such as their names, school names, contact details, school addresses, membership levels, etc.

• Activity Management: Publish club activity information, including the theme, time, location, and participant limit of the activities. Also, make it convenient for principals to sign up for activities and record their participation.

• Message Notification: Push club activity notifications, important announcements, and other information to the principals.

• Data Analysis: Collect data on the number of members and activity participation rates to help you better understand the operation of the club.

• Communication and Interaction: Set up a simple forum or group function to facilitate the exchange of experience and sharing of resources among principals.

2. Plan the Mini-Program Architecture

• Home Page: Display important information such as the club introduction, latest activities, and notifications.

• Membership Center: Principals can view their membership information, activity participation records, and message notifications.

• Activity Page: List all activities. Principals can click to enter the activity details page and sign up for activities.

• Message Center: Display various messages sent by the club.

• Interactive Community: Principals can post and reply to threads for communication.

II. Learn Related Knowledge

1. Mini-Program Development Basics

• Understand the Mini-Program Development Platform: WeChat Mini-Program is currently the most mainstream mini-program platform. You can first visit the official website of WeChat Mini-Program (https://developers.weixin.qq.com/miniprogram/dev/framework/) to learn about the development documentation and familiarize yourself with the basic concepts of the mini-program development framework, page structure, and components.

• Learn Mini-Program Development Languages: The main languages used in mini-programs are JavaScript, WXML (a markup language similar to HTML), and WXSS (a stylesheet language similar to CSS). If you are a computer novice, you can start with these basic languages. There are many related tutorials available online. For example, the development guide in the official documentation of WeChat Mini-Program, as well as some online learning platforms (such as Mooc and Tencent Classroom) also offer specialized mini-program development courses suitable for beginners.

2. Database Knowledge

• Understand Database Concepts: Mini-programs need to store data such as member information and activity information, so you need to understand the basic concepts of databases. Common databases for mini-program development include Cloud Development Database (a convenient database service provided by WeChat Mini-Program) and third-party database services (such as MongoDB). You can first learn how to use the Cloud Development Database, which is suitable for beginners because of its high integration with WeChat Mini-Program. Understand basic operations such as creating database collections, adding data, querying data, updating data, and deleting data.

III. Choose the Right Development Tools and Platforms

1. WeChat Mini-Program Development Tool

• WeChat officially provides a free mini-program development tool (https://developers.weixin.qq.com/miniprogram/dev/devtools/download.html), which you can download and install from the official website. This tool integrates functions such as code writing, debugging, and previewing, and is very suitable for developing WeChat Mini-Programs.

2. Low-Code Development Platform (Optional)

• If you find it difficult to learn programming languages and database knowledge, you can also consider using a low-code development platform. Low-code development platforms allow you to build mini-programs through drag-and-drop components and configuring parameters, without the need to write a lot of code. For example, platforms like Qingliu and Jiandao Cloud offer rich templates and components that can help you quickly build the basic functions of a mini-program. However, the functions of low-code platforms may be somewhat limited, and some complex customization requirements may not be fully met.

IV. Development Steps

1. Build the Mini-Program Framework

• Using the WeChat Mini-Program development tool, create the various pages of the mini-program (such as the home page, membership center, and activity page) according to the page structure of WeChat Mini-Program (the pages folder contains page files, including wxml, wxss, js, and json files). You can start with a simple page, such as the home page, using the wxml file to define the page structure and the wxss file to set the page style.

2. Develop Functional Modules

• Membership Information Management: On the membership center page, use JavaScript code to call the Cloud Development Database API of WeChat Mini-Program to implement the functions of adding, querying, modifying, and deleting membership information. For example, use wx.cloud.database() to obtain a database instance, and then operate the specific collection through the collection method.

• Activity Management: Display the list of activities on the activity page. When clicking on the activity details, jump to the activity details page. Provide a sign-up button on the activity details page, and after clicking the sign-up button, store the principal's sign-up information in the database.

• Message Notification: You can use the message push function of WeChat Mini-Program to send club messages to principals in the form of template messages. You need to configure template messages in the WeChat Mini-Program backend, and then call the wx.request method in the mini-program code to send a request to the WeChat server and trigger the sending of template messages.

3. Testing and Optimization

• During the development process, continuously test whether the functions of the mini-program are working properly. Using the preview function of the WeChat Mini-Program development tool, you can simulate the running effect of the mini-program on a mobile phone. Test various functions, such as the entry of membership information, activity sign-ups, and message receipt, to ensure they are working properly. At the same time, pay attention to optimizing the performance of the mini-program, such as reducing page loading time and optimizing code structure.

V. Launch and Promote

1. Launch the Mini-Program

• In the WeChat Mini-Program development tool, submit the developed mini-program for review. After the review is passed, you can officially release the mini-program. Before submitting for review, make sure the mini-program is functionally complete, aesthetically pleasing, and free of obvious bugs.

2. Promote the Mini-Program

• You can promote the mini-program to principals through WeChat groups, official accounts, offline events, and other means. During the promotion process, highlight the convenience and value brought by the mini-program, such as the ease of managing membership information and timely access to activity notifications.

Developing a mini-program is a gradual process. You can start with simple functions and gradually improve them. If you encounter problems during the development process, you can refer to the official documentation of WeChat Mini-Program or seek help in relevant technical communities (such as Zhihu and CSDN).