

# A Third-party Platform for Group Meal

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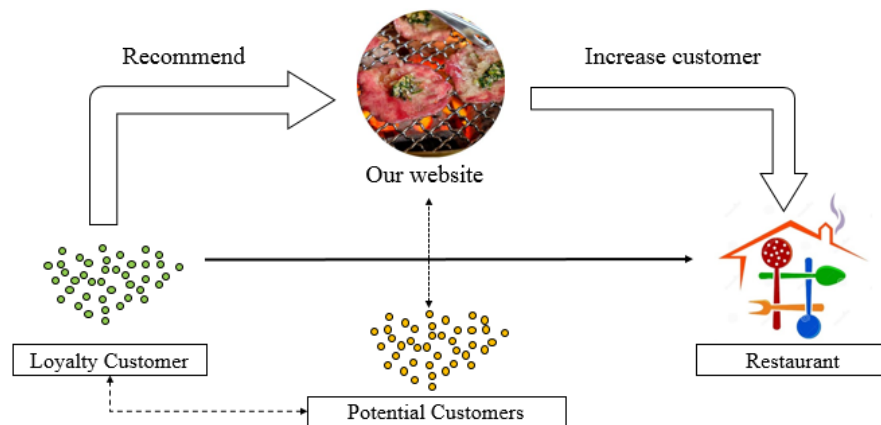
**Abstract.** Nowadays there are more and more people having meals alone, especially students. To reduce Otaku and create more passion to this society, this third-party platform is made to solve the problem. This platform let members create activity by themselves with their nick name instead of real name to create freshness, and they can join others activity. In order to give motivations to members, this platform cooperate with many restaurants by giving promotion when specific condition is met.

## **Introduction**

College students are full of so-called marginalized people, many people worry about the embarrassment of joining a new environment or a community to expand their friend zones. They don't have the courage to invite others because they are afraid of being ignored by classmates in the same department. Or there are some people who always want to expand their friends zone but they don't have the bridge to know others. This website is to give everyone courage on an equal footing. It is a good thing to have a meal with people you don't know but have the same hobby to talk with, and share the discount from the restaurant then become friends. As a third-party platform connecting users and restaurants, restaurants offer discounts and rewards in return for customer sources to achieve mutual benefits.

This is a website that can enhance people's connection. Users only have to create an account that they can have dinner with like-minded others, then they can become friends and reduce marginalized people. In order to promote people's interaction, the website cooperates with various restaurants and offers conditional discounts from restaurants as long as the number of people participating the activity on the website

exceeds a certain number. This is a third-party platform with mutual benefit which provides consumer sources to restaurant and restaurant provides promotion for consumers. The concept of this website is shown in Figure 1 below.



**Figure 1.** Concept of the website

## 1. Literature review

Over the past 40 years, there has been a radical shift in how business is conducted and how people cooperate. The preface of private computers, the Internet, and e-commerce have had a great impact on how businesses function and promote. The preface of social media technology is accelerating and it can expect it to have a similar impact on businesses now and into the prospect. As new technologies become existing, business that learn to use innovative technologies increase great reimbursement. Social media is being widely used by almost all and even the companies, in spite of their size have started using social media to advertise and promote themselves. Big brands make use of the social media to convey their strong existence and friendly customer relationship. Big brands like IBM, Dell and Burger King have made use of the social media to a greater extent. (Saravanakumar, 2012)

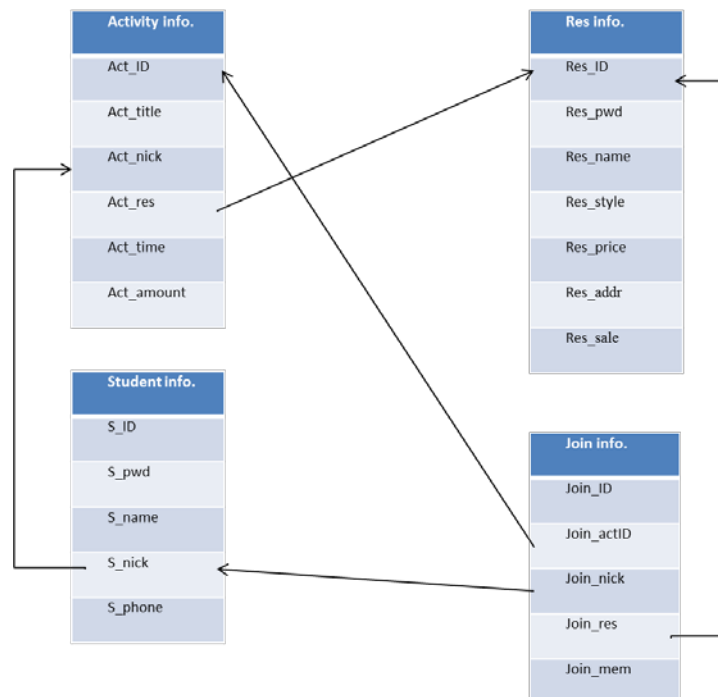
Webpages are increasingly composed of content from myriad unrelated “third-party” websites in the business of advertising, analytics, social networking, and more. Third-party services have tremendous value: they support free content and facilitate web innovation. But third-party services come at a privacy cost: researchers, civil society organizations, and policymakers have increasingly called attention to how third parties can track a user’s browsing activities across websites. R. Mayer and C. Mitchell (2012) surveyed the current policy debate surrounding third-party web tracking and explained the relevant technology. It also presents the Fourth-Party web measurement platform and studies which authors have conducted with it.

## **2. Method**

The main process of the website is very simple, first user has to create a member, then he can create their own activities or participate other people's activities. Co-operative restaurant manager can log in to understand the customer number, or make changes on promotion to attract the public. The event information includes the nickname of the organizer (in anonymous way to increase the expectation of the members), the name of the restaurant, the date of the event and the number of participants, and the restaurant information can be found on the "Restaurant Information" page to know the price and address of the restaurant. More detail steps will be describe in the Case study.

Figure 2 below is the ER model of this report. There are four data tables in our database. For users’ (students) information, there are “ID”, “password”, “name”, “nickname” and “phone”; restaurants’ information has “ID”, “password”, “name”, “style”, “price” (three levels), “address” and “sale discount”. “Nickname” in student is to let users feel closer. In activity table, there are “ID”, “activity title”, “launcher’s nickname”, “restaurant”, “party time” and join amount. Last table is Join table which is similar to activity table, and is actually necessary after doing

normalization. In order to let each activity ID represents only one activity, as well as run the website successfully. Activity table is to record the activities held, whereas Join table is created to record who join the activity. The data is stored in “phpmyadmin” database, and php and html were used for building this website.



**Figure 2.** ER model

### 3. As-is and To-be analysis

In the past, if one wants to have a meal with others, he has to ask them in person or on social website such as Facebook or Line. Once he uses this website, he can obtain an opportunity to know others he might never have a chance to meet. Secondly, in the past if one wants to get restaurant promotion, he might have to call enough people or consume for enough time. By this website, he is able to enjoy the discount whenever he wants as long as having a meal with others. There are many

third-party platforms, most of them are mainly about third-party payment or providing a trade platform. And there are some existing apps dedicating on providing promotions. But this website focuses on gathering people to have a meal then share the promotion, and the main spirit is to improve relationship.

#### 4. Case study

This paragraph mainly shows the website function. In the main page (index) of the website (as shown in Figure 3), everyone including non-member is able to take a look at the activities which have already built. There is a login in and log out system for both users and restaurants (shown in Figure 4). Users can hold an activity and join other's party. Restaurant administrators can revise the restaurant information including address can sale discount, and they can also check how many parties/people will have a meal in their restaurants. More detail will be introduced later.



Figure 3. Main page



**Figure 4.** Login page

In the Restaurant information as shown in Figure 5. There are many restaurants to choose, but some users cannot afford high level restaurant, or he only wants to find a Taiwanese food stand. Then he can filter the restaurant by its style and price. For example, one user wants to have a meal in a Japanese restaurant with the price between 100 to 200 dollars, there is a option restaurant “築地鮮魚” satisfied his requirement. Below the searching function, there is brief introduction for all the restaurants for users to browse, including a photo of the restaurant, restaurant name, style (Japanese, Italian, American, Taiwanese and so on), price (over 200 dollars, 100 to 200 dollars and under 100 dollars three levels), address and sale discount. Users can take a look at the restaurant information to decide which restaurant to be held or which activity to join.



Figure 5. Restaurant introduction

Once normal users log in, he/she can see and revise his personal information (Figure 6) including student ID, name, nickname and phone number. Besides, users can see all the activities he joined or organized. For activity information, user can see who organize this party, the restaurant name, the party time and the amount of people joining this activity.



Figure 6. User's information

In the page of holding an activity (Figure 7), users can select one restaurant which was previous shown in the information page. Then type the title of the activity and choose the time. Once the activity being held successfully, the information in the main page and the user's information page will be renewed so that others can join his party. If user wants to cancel the activity, there is a button in the user's information page can do this job.



**Figure 7.** Organizing an activity

In the page of joining an activity as shown in Figure 8, users can choose the activity he wants by selecting activity ID which can be browsed in the main page. If user wants to filter the activities, this page provides the filtering function by selecting the restaurant name. For example, one user wants to join the activity which held in “Sam 的小館”, then it shows that activity ID 15 and 19 can be chosen. Once user join the activity successfully, the information will reveal in his personal information, then the amount of people joined will plus one.



活動ID	活動名稱	發起人暱稱	餐廳名稱	活動日期	參加人數
15	陪我	515	Sam的小館	2017-12-22 01:59:00	1
19	Sam paper	bye	Sam的小館	2017-12-18 00:59:00	2

**Figure 8.** joining an activity

In restaurant private information page (Figure 9), the manager of restaurant can check and revise the restaurant address and sale discount. In addition, the manager can see how many groups or members are going to have a meal in their restaurant, then the manager can arrange the reservation. There might be an issue that some restaurants are too popular so that too many groups want to have dinner at the same time. One of the solutions is to plus a row, organizer's phone number or email, in the data table so that the restaurant is able to notify those extra groups to change the activity time. For more technical solution, this will discuss in the future works.

首頁

店家登出

按此修改店家資料

[餐廳名稱]----[餐廳風格]----[餐廳價錢] [餐廳地址] [餐廳促銷]  
Sam的小館 小吃 100以下 新竹市東區光復路二段298巷14號 滿4人打85折

Sam的小館預約客戶

活動ID	活動名稱	發起人暱稱	活動日期	參加人數
15	陪我	515	2017-12-22 01:59:00	1
19	Sam paper	bye	2017-12-18 00:59:00	2

Figure 9. Restaurant private information

## 5. Conclusion

For future works, first of all, it can be applied into mobile app so that users would feel more convenient to join the dinner. The functions are roughly the same with website, but it can add alarm function to remind users the dinner time. Second, this website can be used for other kinds of stores such as traveling abroad, people can travel with others especially invite foreign students to travel together in this international world. Third, if this website or app can combine with restaurant, the website can automatically show the reservation situation to let users know when or which stores are available. Forth, people always check the blog article related to the restaurant he has never been to instead of just check the restaurant website. So this website can combine with web crawling or even immediate crawling and text mining to show some detail key words stands for this restaurant. This can save a lot of time for users from searching articles to know how good or bad is the store.

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