

# **Group Project Survey**

## 2PROJ

**GROUP NUMBER: G1** 

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## **1 PROJECT CONTEXT**

We are members of the marketing team of Big Brother, a professional software company. We are working on the development of a new product: « ONLINE SURVEY ». Here is some information about the project.

## 2. FUNCTIONAL EXPRESSION

### 2.1 INFORMATION SEARCH

#### Who are our target consumers?

Online survey is like science and engineering experiments, to understand to verify to investigate, no questionnaire survey is just like a paper strategy. For example, college students, architects, corporate information department.

#### What do they need?

- 1. With high efficiency: There is no need for investigators to enter the household to investigate and collect information one by one.
- 2. With objectivity: The respondent can freely express their true thoughts and situations.
- 3. With unity: This is useful for a comparative analysis of the respondents in the same situation, to investigate the respondents with different consciousness from the society, and to analyze the individual situation.
  - 4.It is extensive: The survey is not limited by the number and scope.

#### • Who are our competitors and what are their offers?

There are many competitors. For example, Qualtrics, type form, 199it, survey monkey and so on. They all have the survey editor and survey analysis. Our competitor Sojump offers questionnaire templates, sample services, online test generation systems, and more than 30 types of questionnaire questions at low or even no charge. Here are some search samples for online survey:

#### Example 1:

### 问卷星 不止问卷调查/在线考试 - Wjx.cn

https://www.wjx.cn ▼

网页 免费使用<mark>问卷星</mark>创建**问卷**调查、在线考试、360度评估等应用;问卷星提供2700万<mark>问卷</mark>调查模板;统计分析报告和原始答卷可免费下载;问卷星支持手机填写、微信群发、红包抽奖、...

#### 问卷星登录

拍摄于问卷星团队二月徒步之旅

## 在线考试

通过问卷星在线考试系统快速生成各类在线考试,完美支持手机填写,轻松实现微...

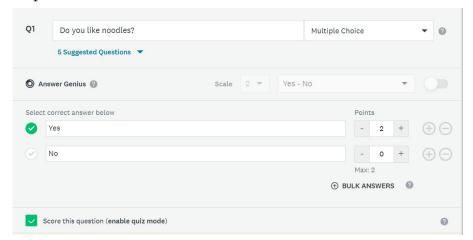
#### 问卷调查模板

问卷调查系统支持30多种题型,可以设置跳转、关联和引用逻辑。支持微信、邮件...

#### 样本服务

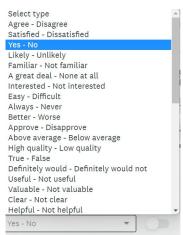
问卷星样本服务可以帮用户快速回收问卷数 据。您可以指定地区、年龄、婚姻家庭...

#### Example 2:

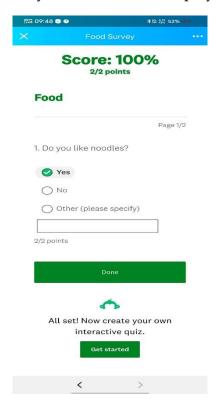


We searched samples for online survey and found the "Survey monkey" is a good example for our project. It has the survey editor that we can create a new survey. There are many choices, for example, we can use the Points to analysis the result after receiving the result.

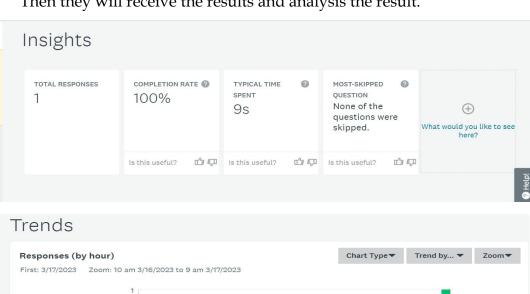
There are many types of the answers. For instance, the "Yes-No" for Q1 in last picture.

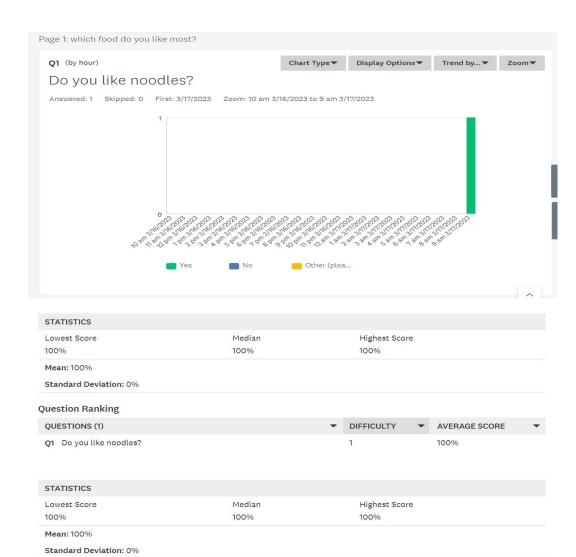


If people done the survey, their score will display.



Then they will receive the results and analysis the result.

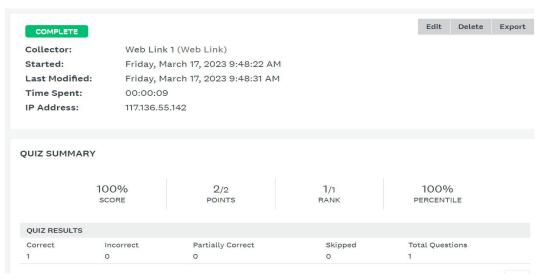




## Individual responses are also displayed.

Question Ranking
QUESTIONS (1)

Q1 Do you like noodles?



DIFFICULTY

▼ AVERAGE SCORE

100%

Here is the link of "SurveyMonkey": <a href="https://www.surveymonkey.com/home/">https://www.surveymonkey.com/home/</a>

## 2.2 ANALYZE MARKET SITUATION

#### • The strengths of our company

Our company has conducted extensive public opinion surveys in advance to understand the market situation, and the questionnaire survey made follows the trend of The Times. The page is simple and generous, the customer is very easy to use, do not need to spend a lot of time to learn the operation method. At the same time, in the process of producing the project, our production cost is relatively low, and the risk is low. At the same time, we can respond to customers' feedback in time and improve the system.

#### • The weaknesses of our company

1.We only have 6 members so we can't compare our company with the big online survey companies. We might need to improve our customer service.

2.We currently cover a relatively small audience, and we need to create some highlights to attract more customers, such as allowing customers to choose different languages.

#### Market opportunities

According to the data, with the popularization and development of the Internet, especially the high penetration of mobile Internet, online research is more and more widely used and has almost become the most mainstream quantitative research method.

#### Threats

1. Competitive pressure: As we can see, there are many similar products in the online questionnaire system in the market, and our foothold is small. If there is no outstanding advantage, it is likely to be difficult to succeed.

2.Investors: Our company is small in size and has not been established for a long time, which is not enough to attract many investors to finance our company and may not be able to face sudden financial threats.

3. There are several risks associated with conducting online surveys.

These risks may be related to the quality, legality, or privacy of data collected, and may include:

Inaccurate and unreliable data: Online surveys may be subject to various forms of bias.

Data breaches and hacking: Online surveys may be vulnerable to data breaches and hacking.

Legal liabilities: Online surveys must adhere to legal and regulatory requirements such as GDPR and COPPA.

4. There are several negative trends associated with online surveys, including:

Sampling bias: Online surveys may suffer from sampling bias if the participants are not a representative sample of the target population.

Response bias: Online surveys may suffer from response bias if respondents give inaccurate or biased responses.

Data security: Online surveys may be vulnerable to cyber-attacks, data breaches, or hacking, which can lead to the loss or exposure of sensitive personal or organizational information.

#### 2.3 IDENTIFY TARGET

As a creative team, we hope to collect more information for users without leaving home and carry out statistical analysis of the information to understand the relationship between the data. At the same time, we also hope that in the process of continuous improvement, users can more easily use the template to create questionnaires.

As a member of the company, we hope that our project can attract more investors and franchisees for the company, expand the scale of the project, and bring a considerable income.

#### **2.4 SET PROMISE**

**Convenience**: We offer a convenient way for users to participate from anywhere with an internet connection at a time that is convenient for them.

**Flexibility**: We allow users the flexibility to respond to questions at their own pace.

**Quicker Data Collection**: We can be disseminated to large numbers of people quickly and easily.

**Data Accuracy and Integrity**: We tend to have a higher level of data quality due to the use of built-in error checking and validation mechanisms. Additionally, online surveys allow for more anonymity, which can lead to more honest and accurate responses.

**Analytical Capabilities**: Our platforms typically come with built-in analytical tools, which allow for easy data analysis and reporting.

**Personalization**: We can be customized to meet specific requirements and needs of the user.

Overall, we offer a reliable, flexible, convenient, and cost-effective way to gather data with a higher level of accuracy and integrity. Through our online surveys, users can conduct research, analyze data, identify trends and patterns, and make more informed decisions based on the results obtained.

Message we will convey in communication and arguments.

The message that our online survey will convey in communication and arguments will depend on the purpose of the survey and the target audience for the survey. However, some common messages that online surveys convey include:

1) A commitment to understanding the target audience: Our online survey can be a powerful tool for collecting data about a specific group of

people, such as customers, clients, or employees. By conducting a survey, a business or organization can show that they are committed to understanding their audience and meeting their needs.

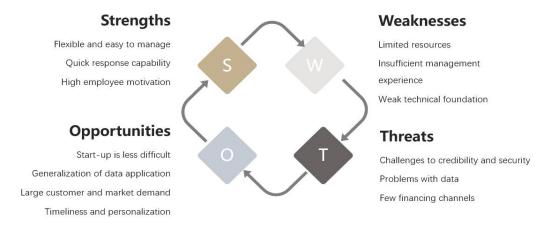
- 2) A desire for feedback: Our online surveys often ask respondents to provide feedback about their experience with a product or service. This message conveys that the organization values feedback and is committed to making changes based on that feedback.
- 3) **Transparency**: This online surveys can be used to gather data about sensitive topics, such as employee satisfaction or customer complaints. By conducting a survey, an organization can demonstrate that they are committed to transparency and are willing to address any issues that may arise.
- 4) **Data-driven decision making**: By collecting data through our online survey, an organization can make data-driven decisions about how to improve their products or services. This message emphasizes the importance of using data to make decisions and improve processes.
- 5) **Inclusion**: Our online survey can be designed to be inclusive and accessible to different audiences, including people with disabilities or non-native language speakers. This message conveys that the organization is committed to inclusivity and values diverse opinions and perspectives.

Overall, the message conveyed by our online survey will depend on the goals and objectives of the survey, and how the data collected will be used to inform decision-making. However, online surveys can be a powerful communication tool for conveying a range of messages related to transparency, inclusivity, and using data to improve processes and outcomes.

## <u> 2.5 MANAGEMENT, COSTS AND PROFITABILITY</u>

Assess the cost and potential of developing our new product. Concerning the technical costs, we use for estimations:

#### SWOT Analysis



#### Strengths:

## 1. Flexible and easy to manage

We are a small team with fewer personnel, which means that communication efficiency is high. For product issues, improvement suggestions, and other information, it can be quickly communicated to all members, which is conducive to making reasonable and effective decisions quickly. At the same time, everyone understands each other and can quickly carry out necessary work handover and collaboration, saving development time and making it easy to manage. The organizational structure is simple, with clear division of labor among all members, avoiding the burden of bureaucratic style and cumbersome system.

#### 2. Quick response capability

We will closely monitor market and demand changes, accurately grasp market trends and trends, closely follow the trend to develop products, quickly adjust development according to market demand, utilize development models such as agile development, fully utilize the rapid feedback advantages of small teams, and focus on innovation.

#### 3. High employee motivation

As a small team, our employees have strong motivation and a sense of belonging to the team. Smooth product development is our common goal, so we are willing to invest more time and experience to ensure the smooth progress of development.

#### Weaknesses

#### 1. Limited resources

As a small team, our funds and technology are relatively limited, and if the project is too large, there may be a shortage of personnel, which will limit the development of product functions. Our team cannot support long-term development work.

#### 2. Insufficient management experience

As a small team, we lack rich management experience and may encounter problems in market operations, resource management, and operation and maintenance, which may affect efficiency.

#### 3. Weak technical foundation

Compared to large companies, there is still room for improvement in some leading technologies. A weak technological foundation can limit product quality, and we need to pay extra attention to cutting-edge technologies.

### **Opportunities**

Start-up is less difficult. Online research uses the Internet to achieve better data sharing and communication. Compared with traditional survey methods, online research eliminates the need for printing, postage and personnel costs, greatly reducing costs and facilitating the gradual progress of the project.

#### 1)Generalization of data application:

As a hot product, online survey has great market potential and strong user demand. It can collect huge amounts of user data, which has important applications in many fields. More data analysis and application functions can be added to the product to productize the data and open up data application opportunities.

#### 2)Large customer and market demand:

According to a post on dollarsprout.com, many businesses, which need feedback about new ideas or products before they hit the market, have to

work with survey companies. In addition, people can get extra money by filling out some paid questionnaires. Overall, online surveys offer opportunities for individuals to earn money and for businesses to gather valuable feedback. So, it can be seen that there is a certain number of potential customers and a large market for online research.

#### 3) Timeliness and personalization:

Online surveys collect and analyze the results of online surveys in real time, providing businesses with instant feedback that can be used to make informed decisions. Specific questionnaires can also be tailored to meet specific business needs, allowing for personalized insights and feedback.

#### **Threats**

#### 1) Challenges to credibility and security:

According to an article by Anura, links in emails related to the investigation may lead to fraudulent websites. These fraudulent websites may use domain spoofing to make it seem like the survey link is legitimate when it's actually a phishing attempt. This, phishing scams, can cause deceived users to lose confidence in services such as online survey.

Online survey data is usually stored in the cloud or other network platforms, and there may be cybersecurity risks, such as data leaks, malware attacks, etc.

Therefore, there are certain credibility and safety challenges for our product before it enter the market.

#### 2) Problems with data:

Lots of Junk Data: Due to the anonymity of online surveys, respondents may knowingly provide false information that skews or distorts data. In addition, some companies or hostile forces may use bots or other means to fill in a large amount of junk data and interfere with the results of online surveys.

One-sidedness of data: Online surveys are usually voluntary, so selective participation may occur, i.e. only certain people will answer, and the sample

may not be fully representative of the entire group, resulting in data bias.

#### 3) Few financing channels:

For start-ups, external investment and financial support are difficult to obtain, because the initial number of customers is small and the brand has no value accumulation, and the subsequent research and development and operation may face difficulties due to lack of funds. In addition, due to the characteristics of the digital era, online survey products have become more common, and imitations and substitutes are also increasing gradually. Therefore, the competitive advantages are weak, so the financing is more difficult.

#### GANTT Analysis (using excel)

Taking into account that the total budget for the new project in the entire IS department IS 500,000, euros the total number of employees in the entire DSI department is limited to 1,000 people/day, the other two projects proposed by other business units require 250 people/day in total, and the average cost per computer specialist in the IS department is 100 euros per person/day, And an average cost of 160 euros per person/day for each middle manager. Here we roughly divide the three projects into three processes, which are: Analysis design, programming test and delivery acceptance. Through our investigation and project experience, analysis design accounts for 38% of the entire project progress, programming test accounts for 52% of the entire project progress, and delivery acceptance accounts for 10% of the entire project progress. When allocating the number of developers and testers, we choose the ratio of the two as 1:2. For the other two projects, the rate of return on investment is 4% and 2% respectively, assuming that our rate of return on investment is 7%, we assume two different time paths: waterfall model and Kanban model, to carry out specific cost analysis.

#### 1.The waterfall model

As mentioned before, the rate of return on investment of the two projects

is 4%, 2% and 7% respectively. In general, 250 people are needed/day. Currently, we allocate 170 people, 80 people and 300 people respectively according to the rate of return on investment.

#### 1)The first project:

- Analysis and Design: A total of 65 people, including 59 computer experts and 6 middle managers. 1. The daily wage is 59×100+6×160=6860 euros. For 15 working days, the total cost is 102,900 euros.
- Programming test: A total of 88 people, of which 80 are computer specialists and 8 are middle managers. 1. The daily wage is 80×100 +8× 160=9280 euros. For 21 working days, the total cost is 194,880 euros.
- Delivery and acceptance: A total of 17 people, including 15 computer experts and 2 middle managers. The daily wage is 15×100+2×160=
   1820 euros. For 4 working days, the total cost is 7,280 euros.

The total cost will be 102,900 + 194,880 + 7,280 = 305,060 euros. It is expected that 40 working days will be carried out in the first project. The return on investment IS 4%, and after the end of the first project, the company will earn a reward of 371,262.4 euros, currently 51,202.4 euros in the IS division.

#### 2)The second project:

- Analysis and design: A total of 30 people, including 27 computer experts, 3 middle management. The daily wage is 27×100+3×160=3180 euros. For 10 working days, the total cost is 31,800 euros.
- Programming test: 42 people in total, 38 computer specialists and 4 middle managers. 1. The daily wage is 38 ×100+4 × 160=4440 euros.
   For 14 working days, the total cost is 62,160 euros.
- Delivery and acceptance: A total of 8 people, including 7 computer experts and 1 middle management. The daily wage is 7×100+1×160

=860 euros. For 3 working days, the total cost is 2580 euros.

The total cost will be 31,800 +62160+2580= 96,540 euros. It is expected that 27 working days will be carried out in the second project. The return on investment IS 2%, and after the end of the second project, the company will earn a reward of 98,470.8 euros, which is currently 514,133.2 euros in the IS division.

#### 3) The third project (our project):

- Analytical Design: A total of 114 people, including 104 computer experts and 10 middle managers. 1. The daily wage is 104×100+10×160= 12,000 euros. For 14 working days, the total cost is 168,000 euros.
- Programming test: A total of 156 people, of which 142 are computer specialists and 14 are middle managers. 1. The daily wage is 142 ×100+14 × 160= 16,440 euros. For 19 working days, the total cost is 312,360 euros.
- Delivery and acceptance: A total of 30 people, including 27 computer experts, 3 middle managers. The daily wage is 27×100+3×160=3180 euros. For 4 working days, the total cost is 12,720 euros.

The total cost will be 168,000 + 312,360 + 12,720 = 493,080 euros. It is expected that 37 working days will be carried out in the third project. The return on investment is 7%, and after the end of the third project, the company will earn a reward of 527,595.6 euros, which is currently 548,648.8 euros in the IS division.

The three projects, under the waterfall model, were carried out for a total of 104 working days, with a total return on investment of 9.7%. The GANTT chart is as follows:

Analysis and Design for P1 Programming test for P1 Delivery and acceptance for Analysis and Design for P2 Programming test for P2 Delivery and acceptance for Analysis and Design for P3 Programming test for P3 Programming test for P3 Delivery and acceptance for P7 Project Construction period The actual start time	51 65 68 82 101 Complete the percentage			Duration  14  22  4  11  15  2  14  18  2	96.00% 93.00% 94.00% 79.00% 85.0% 100.0% 100.0% 100.0%
Design for P1 Programming test for P1 Delivery and acceptance for Analysis and Design for P2 Programming test for P2 Delivery and acceptance for Analysis and Design for P3 Programming test for P3 Delivery and acceptance for Programming test for P3 Delivery and acceptance for Project construction period  The actual start time	16 37 41 51 65 68 82 101 Complete the percentage	21 4 10 14 3 14 19 4 complete percent	15 37 41 52 67 69 83 101	22 4 11 15 2 14 18 2	93.00% 94.00% 79.00% 85.0% 100.0% 100.0% 98.0%
test for P1 Delivery and acceptance for Analysis and Design for P2 Programming test for P2 Delivery and acceptance for Analysis and Design for P3 Programming test for P3 Delivery and acceptance for Project construct on period The actual start time	37 41 51 65 68 82 101 Complete the percentage	4 10 14 3 14 19 4 complete percent	37 41 52 67 69 83 101	4 11 15 2 14 18 2	94.00% 79.00% 85.0% 100.0% 98.0%
Delivery and acceptance for Analysis and Design for P2 Programming test for P2 Delivery and acceptance for Analysis and Design for P3 Programming test for P3 Delivery and acceptance for Project construction period	41 51 65 68 82 101 Complete the percentage	10 14 3 14 19 4 complete percent.	41 52 67 69 83 101	11 15 2 14 18 2	94.00% 79.00% 85.0% 100.0% 98.0%
Design for P2 Programming test for P2 Delivery and acceptance for Analysis and Design for P3 Programming test for P3 Delivery and acceptance for Project Construction period The actual start time	51 65 68 82 101 Complete the percentage	14 3 14 19 4 Complete percent	52 67 69 83 101	15 2 14 18 2	85.0% 100.0% 100.0% 98.0% 100.0%
Programming test for P2 Delivery and acceptance for Analysis and Design for P3 Programming test for P3 Delivery and acceptance for Project construction period	65 68 82 101 Complete the percentage The actual (be	3 14 19 4 Complete percent	67 69 83 101	2 14 18 2	85.0% 100.0% 100.0% 98.0% 100.0%
Delivery and acceptance for Analysis and Design for P3 Programming test for P3 Delivery and acceptance for Project construction period	68 82 101 Complete the percentage The actual (b	14 19 4 Complete percent	69 83 101	14 18 2	100.0% 98.0% 100.0%
Analysis and Design for P3 Programming test for P3 Delivery and acceptance for Project construction period The actual start time	68 82 101 Complete the percentage The actual (b	19 4 Complete percent	83 101	18	100.0% 98.0% 100.0%
Programming test for P3 Delivery and acceptance for Project construction period The actual start time	Complete the percentage The actual (br	eyond) Complete percent	101 age (beyond plan)	2	98.0% 100.0%
Delivery and acceptance for Project construction period The actual start time	Complete the percentage The actual (b	eyond) Complete percent.	age (beyond plan)		100.0%
Project The actual start on period time	Complete the percentage The actual (b	eyond) Complete percent.	age (beyond plan)		
constructi on period	percentage The actual (b)			36 37 38 39 40 41 42	43 44 45 46 47 48 49 50 9
4 55 56 57 58 59 60 61 62 63	64 65 66 67 68 69 70 71 72	73 74 75 76 77 78 79	80 81 82 83 84 85 86 87 88	8 89 90 91 92 93 94 95	96 97 98 99 100 101 102 10
				_	

In the waterfall model, the disadvantage is that the requirements cannot be changed once the project starts, and the project is not flexible enough, and errors will lead to the overall slow progress.

#### 2.Kanban

Kanban is a system framework for implementing agile and DevOps software development, the core of which is all-round visualization of work and real-time communication based on work. Through the visual display of each work item in Kanban, team members can clearly understand the status and progress of each work. Software development teams achieve "just-in-time" (JIT) results by matching the work in progress (WIP) to the team's capabilities. At the same time, it adopts CI/CD for continuous integration and continuous delivery.

On the premise that the budget of the whole project does not exceed 500,000 euros, we change the total number of team members to 380, and the proportion of members in the three parts is the same as above: 144 people in the analysis and design part (130 computer experts, 14 middle managers), 198 people in the programming and testing part (180 computer experts, 180 middle managers). 18 middle managers), 38 people (34 computer experts, 4 middle managers) in the delivery and acceptance part. The specific project cost analysis is as follows:

#### 1)The first project:

- Analytical Design: A total of 144 people, including 130 computer experts and 14 middle managers. 1. The daily wage is 130×100+14×160= 15,240 euros. For 7 working days, the total cost is 106,680 euros.
- Programming test: 198 people in total, 180 computer specialists and 18 middle managers. 1. The daily wage is 180×100+18×160= 20,880 euros. For 10 working days, the total cost is 208,800 euros.
- Delivery and acceptance: A total of 38 people, of whom 34 are computer experts and 4 are middle managers. The daily wage is 34×100+4×160=4040 euros. For 2 working days, the total cost is 8,080 euros.

We have adopted the Kanban model here, so we chose to work as a team for the first project, and the total cost would be 106,680 + 208,800 +8080=

323,560 euros. It is expected that 19 working days will be carried out in the first project. The return on investment IS 4%, and after the end of the first project, the company will earn a reward of 336,502.4 euros, currently 512,942.4 euros in the IS division.

#### 2)The second project:

- Analysis and design: A total of 144 people, including 130 computer experts and 14 middle managers. 1. The daily wage is 130×100+14× 160= 15,240 euros. For 5 working days, the total cost is 76,200 euros.
- Programming test: 198 people in total, 180 computer specialists and 18 middle managers. 1. The daily wage is 180×100+18×160= 20,880 euros. For 7 working days, the total cost is 146,160 euros.
- Delivery and acceptance: A total of 38 people, of whom 34 are computer experts and 4 are middle managers. The daily wage is 34×100+4×160=4040 euros. For 1 working day, the total cost is 4040 euros.

Since we have adopted the Kanban model here, the total cost for the team responsible for the analysis and design will be 76,200 + 146,160 +4040= 226,40 0 euros. It is expected that 19 working days will be carried out in the second project. The return on investment IS 2%, and after the end of the second project, the company will earn a reward of 235,456 euros, which is currently 509, 656 euros in the IS division.

#### 3)The third project (ours):

- Analytical Design: A total of 144 people, including 130 computer experts and 14 middle managers. 1. The daily wage is 130×100+14×160= 15,240 euros. For 8 working days, the total cost is 121,920 euros.
- Programming test: 198 people in total, 180 computer specialists and 18 middle managers. 1. The daily wage is 180×100+18×160= 20,880 euros. For 11 working days, the total cost is 229,680 euros.
- Delivery and acceptance: A total of 38 people, of whom 34 are

computer experts and 4 are middle managers. The daily wage is  $34\times100+4\times160=4040$  euros. For 2 working days, the total cost is 8,080 euros.

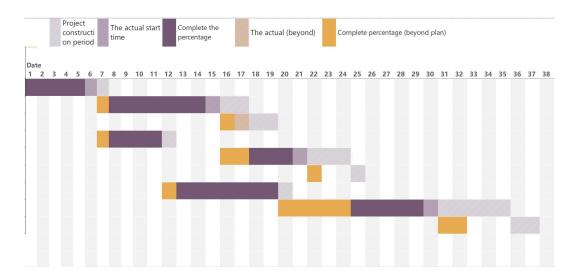
Under the same Kanban model, the total cost for the team responsible for the analysis and design would be 121,920 + 229,680 +8080= 359,680 euros. It is expected that 26 working days will be carried out in the third project. The return on investment IS 7%, and after the end of the third project, the company will have earned a reward of 374,067.2 euros, currently 525,177.6 euros in the IS division.

With the Kanban model, the IS division will receive a return incentive of 525,177.6 euros. The three projects took a total of 53 working days and the total return on investment was 5.03%.

The **GANTT chart** of Kanban's model is as follows:

	CARITT	a1 .
Kanban	GANII	Chart

Task	Start Date	Duration	Actual Start Date	Actual Duration	Percentage of Completion
Analysis and Design for P1	1	7	1	6	95.0%
Programming test for P1	8	10	7	9	97.0%
Delivery and acceptance for	18	2	16	2	98.0%
Analysis and Design for P2	8	5	7	5	100.0%
Programming test for P2	18	7	16	6	85.0%
Delivery and acceptance for	25	1	22	1	100.0%
Analysis and Design for P3	13	8	12	8	100.0%
Programming test for P3	25	11	20	11	98.0%
Delivery and acceptance for	36	2	31	2	100.0%



#### 3.GANTT diagram analysis of our project specific

Here we will further discuss the third part that has been developed above, as follows:

#### • Analysis design:

- 1. Specification requirement analysis (T1): including questionnaire design, question type, survey object, survey time, reward, etc. This part will take about 2 working days to complete. No dependencies are required for this part.
- 2. System Design (T2): Based on requirements analysis, design the architecture and functions of the system, including database design, front-end page design, back-end logic design, etc. This part will take about 3 working days to complete. This part requires T1 dependency.
- 3. Technology selection (T3): Select the technology and tools suitable for the system, including front-end development technology, back-end development technology, database technology, etc. This part will take about 3 working days to complete. This part requires T1 and T2 dependencies.

#### Programming tests:

1. Survey Editor - Front-end web Coding (T4): Front-end programming of the survey editor. This part takes 6 business days to complete, this part requires a reliance on T1, T2, T3.

- 2. Survey Analyzer Front-end web Coding (T5): Survey analyzer front-end programming. This part takes 7 working days to complete, this part requires a reliance on T1, T2, T3.
- 3. Survey Editor Database Code (T6): The database code of the measurement editor. It takes about 7 business days to complete, this part requires T1, T2, T3 dependency.
- 4. Survey Analyzer-Database Encoding (T7): Measure the database encoding of the analyzer. It takes about 8 business days to complete, this part requires T1, T2, T3 dependency.
- 5. Survey Editor Front-end Back-end Connection Code (T8): The connection between the front-end web and the database of the survey editor. This part takes 4 working days to complete, this part requires T4, T6 dependency.
- 6. Investigate the Analyzer Front end Back-end connection code (T9): Investigate the connection between the front end web of the analyzer and the database. This part takes 3 working days to complete, this part requires T5, T7 dependency.
- 7. Connection of Survey Editor and Survey Analyzer (T10): These two parts are connected. This part takes 2 working days to complete, this part requires T8, T9 dependency.
- 8. Test of Survey Editor and Survey Analyzer (T11): These two parts are tested. This part takes 6 business days to complete and this part requires T10 dependency.

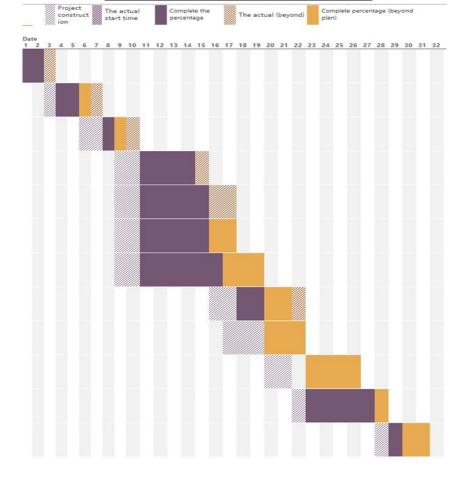
#### Delivery acceptance:

 Delivery to the customer for acceptance (T12): This part is the customer to check the operation of the system, according to the operation of the acceptance. This part takes 2 working days to complete, and this part requires the reliance of T11.

#### Our project **GANTT chart** is as follows:

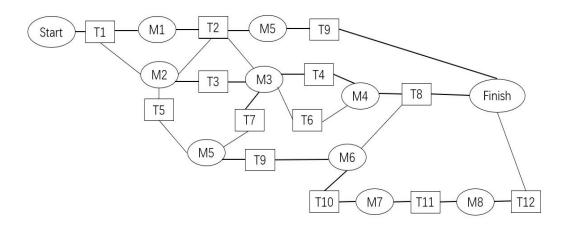
	NI	

Task	Start Date	Duration	Actual Start Date	Actual Duration	Percentage of Completion
Specification Requirements Analysis (T1)	1	2	1	3	95.0%
System Design (T2)	3	3	4	4	96.00%
Technical Selection (T3)	6	3	8	3	99.00%
Survey Editor - Front-End Web Coding (T4)	9	6	11	5	96,00%
Survey Analyzer - Front-end web coding (T5)	9	7	11	7	85.00%
Survey Editor - Database Coding (T6)	9	7	11	7	100.0%
Survey Analyzer - Database Code (T7)	9	8	11	9	100.0%
Survey Editor - Front-End Back- End Connection Code (T8)	16	4	18	5	98.0%
Survey Analyzer - Front-End and Back-End Connection Code (T9)	17	3	20	3	100.0%
Connection of the Survey Editor and Survey Analyzer (T10)	20	2	23	4	100.0%
Testing of the Survey Editor and Survey Analyzer (T11)	22	6	23	6	100.0%
Delivery to the customer for acceptance (T12)	28	2	29	3	100.0%

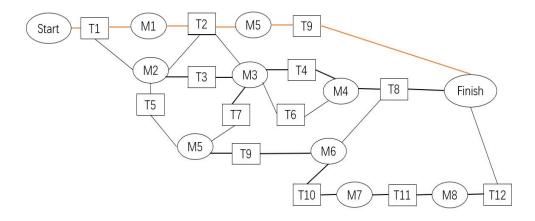


The network diagram and PERTH diagram used to create the GANTT:

Task	Duration (days)	Dependencies
T1	2	
T2	3	T1 (M1)
Т3	3	T1T2 (M2)
T4	6	T1T2T3 (M3)
T5	7	T1T2T3 (M3)
T6	7	T1T2T3 (M3)
T7	8	T1T2T3 (M3)
T8	4	T4T6 (M4)
T9	3	T5T7 (M5)
T10	2	T8T9 (M6)
T11	6	T10 (M7)
T12	2	T11 (M8)



The critical path of the network diagram shows as below:



## **2.6 FIND A WAY TO GET OUR PRODUCT TESTED**

## For the testing plan:

Firstly, we can conduct internal testing. Firstly, we need to conduct

sufficient testing within the company to ensure that the product has complete functionality, good user experience, and no bugs.

After testing the functionality, we will open the beta version to family and friends for more extensive testing, collect feedback and suggestions, and collect suggestions in our circle of acquaintances.

In the future, we will release a beta version in relevant technical communities and forums, receive feedback, and continue to improve the product based on feedback.

After the product matures, we will hold a press conference to officially promote the product to the public, allowing more people to participate in subsequent testing and use. By promoting the product to a wider range of potential customers through advertising, social media, and other means, we continuously improve the product's visibility and receive more feedback in order to continue optimizing the product.

In order to increase publicity efforts, we also plan to invite industry leaders. Find well-known bloggers and experts in the relevant industry to conduct product trials and reviews, and their opinions and evaluations will have a great influence.

#### For specific testing content:

- 1. Version testing: Launch two or more different versions of a product's functionality or interface, and randomly assign them to a group of users to compare the effects of different versions and select the version with a better user experience. This can make product iterations more precise and grounded.
- 2. Strategic testing: Focus on testing the core functions or characteristics of the product. For our questionnaire product, we focus on questionnaire creation and data collection. Small issues in other areas will not affect the main function, which can accelerate the online process.
- 3. Availability testing. Professional testers test products according to standard usability testing plans and processes, evaluating their performance

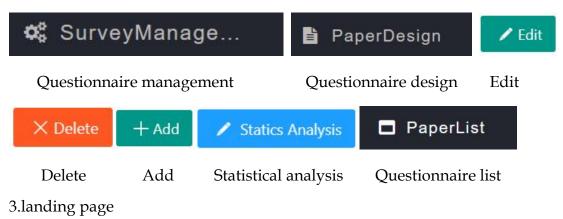
in terms of usability, accessibility, compatibility, etc. This professional testing can uncover more comprehensive and in-depth product issues.

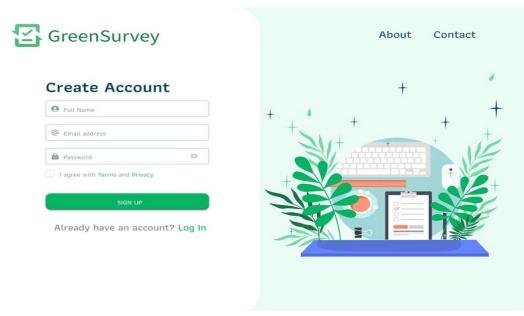
## **2.7 DESIGN AN ATTRACTIVE VISUAL IDENTITY**

### 1.Efficient logo



#### 2.Icons:

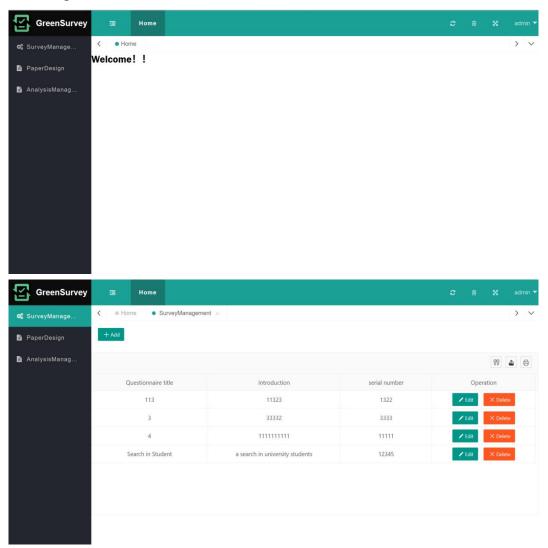




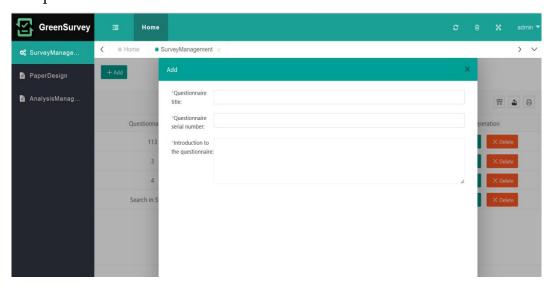
### 4.Pages:

#### **Survey Editor:**

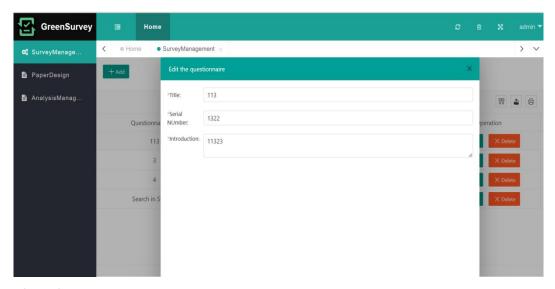
## Home Page



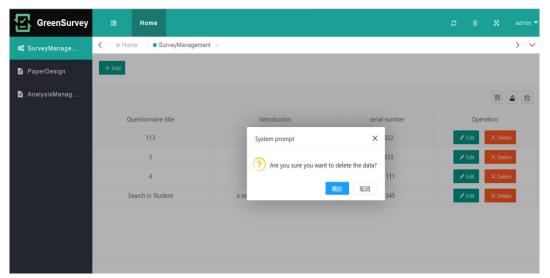
## New questionnaire:



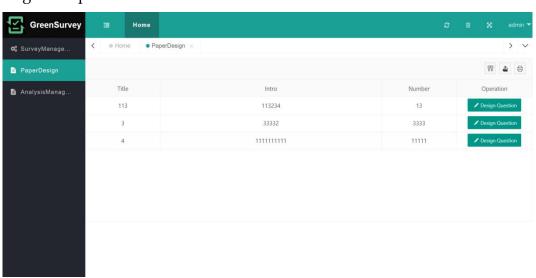
Edit the questionnaire:

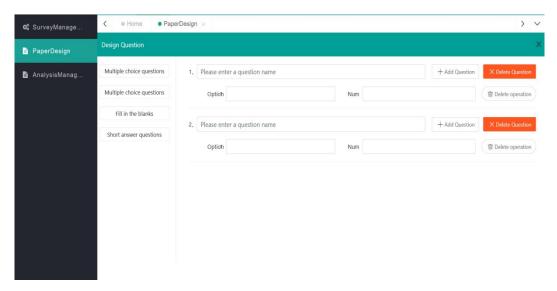


## Delete the questionnaire:



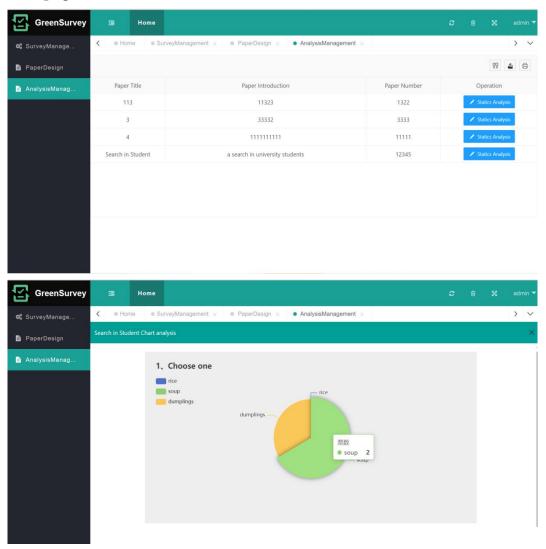
## Design test questions:

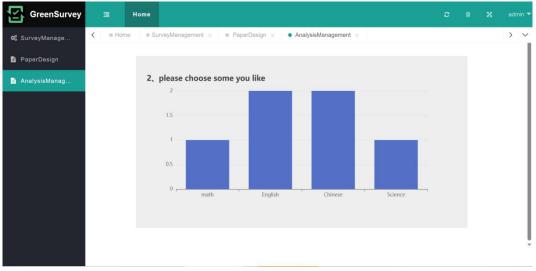




## Survey Analyzer:

#### Home page





Search in Student		
1		
选项	数量	Percent
rice	0	O%
soup	2	67%
dumplings	1	33%
2		
选项	数量	Percent
math	1	17%
English	2	33%
Chinese	2	33%
Science	1	17%

## 2.8 CREATE THE PERFECT SLOGAN

Our slogan: Click and get connected.

One clicks to connect the investigator and the subject. A simple and interesting mobile survey that covers the entire category of survey experience.

#### 2.9 SET OUR DISTRIBUTION POLICY

Due to our small team and low initial visibility, we will collaborate with third-party data providers. These companies have accumulated a large number of users and data, which can quickly help their products reach a wider target audience and obtain richer data. But it needs to be divided into a certain proportion of income, and there is a slight decrease in data control. Wait for the later development of business and products, and then gradually shift to independent sales.

We can also collaborate with research companies, advertising agents, and other professional service organizations. They need to regularly conduct large-scale questionnaire survey projects, sign long-term cooperation agreements, and become important channels and sources of income. This requires our product to have strong customization capabilities and high service quality.

#### 2.10 DEFINE OUR COMMUNICATION POLICY

As a general marketing plan, here are some ways to make a new product, Online Survey, known to the target audience:

Email marketing: One of the most direct ways to reach the target audience is through email marketing. It involves compiling a subscriber list, creating an email with a clear and concise message, including a call-to-action (CTA) and sending it to the list.

Social media marketing: Social media platforms such as Twitter,
Facebook, and LinkedIn offer a less direct but equally effective marketing
channel to reach the target audience. By creating engaging content and using
targeted ads, businesses can increase brand awareness and reach new
audiences.

Paid advertising: Paid advertising methods like display ads or Pay-per-click (PPC) advertising campaigns can help businesses target specific audiences, driving traffic to the website and boosting brand awareness.

Search engine optimization (SEO): SEO is an essential strategy for online marketers to optimize their website and content to rank higher in search engine results pages (SERPs). By improving the visibility of the online survey on search engines, it can drive organic traffic and generate leads.

Influencer marketing: Influencer marketing can be effective in reaching and influencing potential customers through credible endorsements.

Identifying influencers in the industry or target audience and working with them to promote the new product can help build credibility and trust.

Content marketing: Creating and sharing relevant and informative content like blog posts, whitepapers, or eBooks can establish thought leadership, drive traffic, and generate leads.

By using a combination of these tactics, businesses can increase the visibility and awareness of the new product, such as online surveys, and reach a larger audience. The choice of the marketing mix will depend on the budget, audience, market objectives, and resources available.

## 3. GROUP DIVISION

Project manager: LI Xiaoyu

Developer: ZHU Ziwei

Designer Marketer: LI Yixuan & GUO Jiayi & WANG Ziyue & LIU

Xiaoxuan

**Researcher:** All members